

Jeffrey Richardson's Book
The SEAMAN'S

VADE-MECUM

A N D

Defensive WAR by SEA:

CONTAINING

A MARITIME DICTIONARY;

The Proportions of Rigging, Masts and Yards; Weight of Anchors; Sizes and Weight of Cables and Cordage; List of the Navy. The Words of Command in exercising the small Arms, Bayonet, Granadoes, and great Guns, Duty of Officers, &c.

Jeffrey — ALSO *Richardson*
Shewing how to prepare a Merchant-Ship for a close Fight, through the Bulk-heads, Coamings, Loop-holes, &c. with the Advantages to be taking in Chacing, considered, under all Positions in respect to Wind and Tide.

DEFENSIVE FIGHTING;

Shewing how Merchant-Ships are to act, in Fleets, when Canonaded or Boarded by the Enemy.

NAVAL FORTIFICATION;

The Advantages of Mooring considered, in respect to Wind and Tide; and how to lay Booms in Rivers, and raise Redoubts to defend them.

An ESSAY on NAVAL BOOK-KEEPING;

Or a regular Method for the Purser, Clerk, Steward, and other Officers to keep an Account of Stores, &c.

The Method of forming SIGNALS for sailing in Company, under a Commodore in Time of War; with many other Particulars relating to the Navy, East-India, and Merchant Service.

By WILLIAM MOUNTAINE,

Mathematical Examiner to the Honourable Corporation of Trinity-House of Deptford-Strond, and F.R.S.

With Additions by JOHN ADAMS, Teacher of the Mathematics.

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T H E
P R E F A C E.

TH A T the Monarchs of *Great-Britain*, have a peculiar and sovereign Authority upon the Ocean, is a Right so ancient and undeniable, that it never was publicly disputed, but by *Huga Grotius*, in his *Marc Liberum*, published in the Year 1636, in Favour of the *Dutch* Fishery upon our Coasts; which Book was fully controverted by Mr. *Seldon's Mare Clausum*, wherein he proves this Sovereignty from the Laws of GOD and of Nature, besides an uninterrupted Fruition of it for so many Ages past, as that its Beginning cannot be traced out.

It is probable enough that this Sovereignty commenced with the first Inhabitants, who soon discovered the great Use of *Machines* made to float upon the Water, in the easy Conveyance of their Traffic from one Place to another upon the Coasts, as also their singular Service in the Art of Fishing: They would also presently perceive (by the Names of their Situation) that Those would be the most effectual Bulwarks to defend their Lives and Liberties against the Invasions of any neighbouring Powers; and it is as probable that (in those Primitive Times) they served in the double Capacity of Defence and Trade, and continued in this State, until (by the Encroachments of their Neighbours upon their Trade, and Attempts made upon their Coasts) it was

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found

P R E F A C E.

found necessary to fortify and enlarge their Vessels of Defence, and fix them upon another Establishment.

Hence it appear that the Sovereignty of the Seas, and the Trade of this Nation, are of equal Antiquity; and as they found the Advantages of Trade capable to support their Shipping, so they found the Benefit of Shipping in the Preservation of their Trade; and thus they have continued Hand-in-hand to this Day; the Influence of which every Man of Business is duly sensible of: For it is our formidable *Navy-Royal*, and our *Maritime Commerce* that renders us so considerable in the Eye of the World.

Law is the Preceptrix of every Kingdom, it teaches the Subjects their Duty, and punishes the Guilty; and the more salutary the Law, the more happy, robust and active the Constitution: Under the Suffrage of National Laws, every Community must be actuated by proper and necessary Regulations, if not, they can never flourish, but must dwindle, and end in Confusion.

Our *Royal Navy* being of the greatest Importance to the Kingdom, the Legislature has constantly taken peculiar Care from Time to Time (by the most salubrious Laws) to support and improve its Strength, Lustre and Dignity, and the Regulations and Instructions relating thereto, contain at this Time a very great Degree of Perfection: In those every Officer is apprized of his Duty, the general Good of the Seamen considered, the Diligent and Obedient encouraged, the Sick and Wounded taken Care of and rewarded, Provision made for the Widows

and

P R E F A C E.

and Orphans of the Meritorious, the Superannuated relieved and provided for, an ultimate Regard exhibited (as appears through all their Precepts) for a due and regular Dispensation of the Stores, and the Rules prescribed, being duly executed, are an absolute and infallible Remedy against Imbezzlement.

These Regulations fall into the Hands of very few beside Commission and Warrant-Officers; and for this Reason, I have herein offered a short Review of them, in Hopes that it may be of Service to some who are already, or are about to be concerned in the NAVY, and a Satisfaction to others who are not so well acquainted in what Manner; and how regular the Motion of this great and important *Machine* is conducted.

The latter Part of these Sheets is designed for the Advantage of *Commercial Navigation*, that is, how Commanders of small Merchant-men, (that run without Convoy, carry but few Hands, and those particularly who have not studied or practised the Art of *Defensive Sea Fighting*) may the better act in Time of War, for the Preservation of their Lives, Liberties and Fortunes. And for this I acknowledge myself solely obliged to the ingenious Capt. *Robert Park* of *Ipswich*, who published a book in the Year 1704, intitled, *Defensive War of Sea*. This Book was very much esteemed, and did not want Purchasers, but at the Conclusion of Peace, the Proprietors did not think it convenient to make a Re-publication: As therefore it was once so well approved, I flatter myself that it may (in some Measure) be acceptable at this Time.

P R E F A C E.

I have not directly Re-printed this Author, that would have been too Voluminous, and (I think) unnecessary, but have exhibited his direct Sentiments upon every material Section; and where I could not convey (according to my own Opinion) his true meaning by Contraction, I have made Use of his own Expression at large.

Those Sections, which I have omitted, as less material, are the *Historical Account of Sea Fights*, variously interspersed through the Whole; and (by the Author) are chiefly intended as *Stimulus* to excite the Virtue and Courage of his Fellow-Subjects for their own Reputation, and the Honour of the Kingdom.

As to his *Fortification*, I have only introduced the *Naval Part*, being the most essential to our Purpose, and for the rest refer those that are desirous to be therewith acquainted, to such Authors who have particularly treated upon this Subject.

In this Edition I have left out the Rigging Tables, and also the Epitome of the Art of Gunnery; the first being applied as an Appendix to the Ship-Builder's Assistance, or Marine Architecture; and the latter is now treated of more explicitly in a Book lately published, and intitled, *The Practical Sea-Gunner's Companion*. For which Omissions, I hope, to have made suitable Amends, by introducing an Essay on Naval Book-keeping, as well in regard to the Purser, as to the Captain's Clerk and Steward, a Subject (I believe) never publickly treated of before.

Upon the Whole, whatever may be contained in the following Sheets worthy of Acceptation, let the

P R E F A C E.

the meritorious Author (to whom I am chiefly obliged) have the Honour due: As to my own Part, if they may prove an Instrument of Improvement and Promotion to one young Seaman, be a Means of saving the Life but of one Man, or the Preservation of one Ship, it will be an inexpressible Satisfaction, and infinitely compensate for all the Trouble of this Collection.

WILLIAM MOUNTAINE.

To the R E A D E R.

THE Additions to this useful Work are as follow: *First*, The Dictionary is enriched with many Terms. *Secondly*, A Table of the Rigging of a Ship of *Six Hundred Tons*, in which, the Length, Weight, and Size of every Part, both of the standing and running Rigging, may be immediately seen. *Thirdly*, Some Regulations in the *East-India* Service, which may be useful in the Merchant Service in general. *Lastly*, In many Parts of the Work will be found several necessary Additions and Corrections, in all which it has been my earnest Desire to merit the Name of

Your obedient

humble Servant,

Edmonton,
Dec. 19th, 1782.

JOHN ADAMS.

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MARITIME DICTIONARY:

O R,

An Explanation of the most useful SEA-TERMS.

A

A B R E A S T, Side by Side.

A-hull, without Sails set.

Aft, or **Abaft**. From the Head or Fore-part of the Ship towards the Stern; as, Carry such a Thing **abaft**; the **Mast** **rakes aft**; that is towards the Stern.

Amain, that is, **Yield**: A Term used by a Man of War to the Enemy. Let go **amain**, suddenly all at once.

Strike amain. Lower your Top sails.

Aloft, signifies over-head, or above.

The Anchor is foul; that is, the Cable is got about the Fluke.

The Anchor is a-Peck, or, **a-Peak**; signifying, that it is directly under the **Hawse** (or **Hole**) through which the Cable of the Anchor runs out.

The Anchor is a Cock Bill; that is, swings or hangs up and down by the Ship's Side.

A-stern, behind; opposed to **a-head**, before.

Awaft, stop, hold your hand.

An Awning, is a Shelter or Skreen, that is made of a Sail, or such like, supported in the Nature of a Canopy over the Deck, to keep off the Heat of the Sun.

B.

Bale; that is, lade Water out of the Ship or Boat.

Ballast, Iron, Stones, &c. put into the Vessel's bottom to keep her stiff against the action of the wind upon the Sails.

Barnacle, a species of shell fish, sticking to the Vessel's bottom.

To bear towards the Land, &c. that is, to sail towards it.

Bring your Guns to bear; that is, Point them right with the Mark.

Bear-up; that is, make the Ship sail more before the Wind, a common, but improper expression.

Beckets, straps to hang loose ropes in.

Belay, Make fast any Running Rope.

Bend the Sails; that is, fasten or apply them to the Yards, *Her Sails are unbent*, viz. Has no Sails fixed.

Bend a Cable, make it fast to the Ring of the Anchor.

Binacle, a little Erection to hold the Compass, and lights to steer by.

A Birth, A convenient Place to moor a Ship, or to be in.

A Bight, Part of a Rope between the Ends doubled.

The Ship is Bilged; that is, has struck off some of her Timber on a Rock or Anchor, and springs a Leak.

Block, a Piece of Wood with Pulleys fastened in it.

The Bits, are two square Pieces of Timber, to which the Cables are fastened, when the Ship rides at Anchor, also to fasten the Top-sail-sheets to.

Braces. Ropes by which the Yards are managed.

A Bonnet, is an Addition of another Sail. To fasten it on, they say, *Lace on the Bonnet*. And to take it off, *Shake off the Bonnet*.

Board and Beard, signifies, that two Ships come so near as to touch one another, also to sail first on one Tack, then on the other.

To Board a Ship, is to enter it in an hostile Manner, or against the Inclination of those in her.

To go Aboard, is to enter it by Consent, or in a friendly Manner.

Board it up; that is, turn to Windward.

To break Bulk, to open the Hold, and take Goods there out.

A Buoy, is a floating Cask, or such like, which is mored at a Sand-bank, to warn Shipping against it. Also is used to every Anchor, in order to shew where the Anchor lies.

Bow, The round Part of the Ship forward.

Box-haul, A Method of putting a Ship about, when she will not Tack, or misses her Stays.

Brake, of the Pump, that is, the Handle.

Breakers, Rocks and Shoals, on which the Waves are much agitated.

To Bring to, to place the Sails to counteract each other.

Broach-to, when the Wind takes the Sail a back.

C.

Cap, which fastens the upper to the lower Masts.

Capstern, is a mechanical Power, fixed perpendicular upon the Deck, and used to weigh Anchors, to get the Sheets on board, and for many other Purposes when great Force is required.

Cat, A strong Tackle used to get the Anchors to the Bow; it is reeved through the *Cat-head*, a strong Piece of Timber at the Bow.

Cieling. The inside Planks in the Ship's Hold.

To Chace, is to pursue another Ship or Vessel; and the ship, &c. so pursued, is called the *Chace*.

Carreening, is bringing a Ship to lie down on one Side, while the other is trimmed and caulked.

Caulking, is driving Oakum, &c. into the Seams of the ship, to keep out Water.

To Conde, or *Cun*, is to direct or guide.

To Cun a Ship, is to direct the Person at the Helm how to steer her. If the Ship goes before the Wind, then the Pilot, or he who cuns the Ship, uses the Terms to him that steers, according as the Case requires; viz. *Starboard*, that is, to put the Helm to the *Starboard* (or right) Side, to make the Ship go to the *Larboard* (or left) Side; and so of the contrary. *Port*, is to put the Helm to the *Larboard* or left Side of the Ship; *Steady* is to keep her as she goes with a large Wind.

In keeping the Ship near the Wind, these Terms are used; viz. *Loof*, (or *Luff*), *keep your Luff*; *fall not off*.

To make her go more large; they say, *Ease the Helm*; *No near*; *bear-up*.

To keep her upon the same Point; when close hauled, they say, *Thus, thus*, or *As you go*, and such like.

The Course, is that Point of the Compass on which the Ship sails.

Courses, signify the Ship's lower Sails; as, *She is under her fore Course*; that is, sails with her Fore Sail only.

Under her Courses, is under her lower Sails.

The Ship is Crank, that is wants Ballast.

D.

Dead-Eyes, by which the Ends of the Shrouds are fastened.
Dead-Lights, Ports, or Shutters for the Cabin Windows in a Storm.

To Disembogue, is to go out of the Mouth of a Gulph or River.

To Dispart a Piece of Ordnance, is to find out the Difference of Diameters betwixt the Breech and Mouth of a Cannon.

The Deck is a Flush fore and aft; that is, laid from Head to Stern without any Falls or Risings.

The Ship drives, is when her Anchors give way.

Dunnage, Wood laid upon the Cieling to preserve the Cargo if the Ship makes Water.

E.

End for End, is a Term used when a Rope runs all out of the Block, so that it is unreev'd.

F.

A Fathom, is a Measure containing six Feet.

A Fate, is one Circle of any Rope or Cable quoiled up round.

To Furl a Sail or band it, is to wrap it up close together, and bind it up with little Strings, called *Caskets*, fast to the Yard.

Fid, a conical or pyramidical Pin.

To Fise a Mast, or Yard, is to fasten a Piece of Timber, or Plank (by way of Splinter) to the Mast or Yard, to strengthen it; which Piece or Plank is called a *Fise*.

Fluke, the broad Arrow-like Part of the Point of the Anchor.

To lower or strike the Flag, is to pull it down upon the Cap; and is either done in saluting with the utmost Respect, or in Token of yielding to an Enemy in Fight.

Free the Boat or Ship; that is, Bule or Pump the Water out.

To fall off, to go to Leeward; or when the Wind comes more a-head, it is said to *fall-off*.

A Maritime Dictionary.

Fore and aft, from Head to Stern.

Fore-Castle, the foremost Deck.

G.

The Ship's Gage, is so many Feet as she sinks in the Water, or so many Feet as she draws.

Weather-Gage, is when one Ship has the Wind (or is to Windward of another.

To Graze the Ship, to bring her to lie a ground, to burn off her old Filth, this is called *Breathing*.

The Ship gries, viz. Turns her Head to the Wind more than she should.

H.

The Helm is hard a Weather; that is, as far to the Windward side of the Ship as it will go, and *hard a lee* is the contrary.

To Haul, signifies to pull.

Heave over-board, is to throw any Thing out of the Ship.

To Hail a Ship, to call to her Company to know whither they are bound, &c. and is thus done:

Hoa the Ship! or only *H3a!* To which they answer, *Hoa!* Likewise to salute another Ship with Trumpets, &c. is called *Hailing*.

Hatchway, the opening in the Ship's Decks.

Fresh the Hawse, signifies to veer out more Cable, when that Part that lies in the *Hawse* (or Hole through which it runs) is fretted or chafed.

An Hawser, is a small Cable belonging to the Kedge Anchor.

Clear the Hawse, is when two Cables, that come through several *Hawses*, are twisted, and are ordered to be untwisted or freed.

To ride thwart the Hawse, and *upon the Hawse*, signifies when a Ship lies thwart, or cross, or with her Stern just before another Ship's *Hawse*.

A Hitch, is a particular Knot used to fasten two Ropes together, or a Rope to any Thing.

The Ship Heels, she inclines more to one Side than the other; as, *She heels to the Larboard*, viz. inclines to the Larboard (or left) Side.

Helm, or Rudder, the flat Piece of Timber astern that governs the Ship, but the Rudder, Tiller, and wheel compose the *Helm* in the sea Phrase.

The Hold of a Ship, is the very lower Apartment or Division in the Bottom of the Ship, betwixt the Kelson and the lower Deck, where all Goods, Stores, &c. lie.

To rummage the Hold, is to remove or clear the Goods, &c. out of it.

To stow the Hold, is to place Goods, &c. in the Hold.

To Hoist, is to hawl or lift up.

To lie a Hull, is when a Ship's Sails are all taken in at Sea.

Hounds, the swelling Part of the Mast near the Top.

I.

Jeers or Geers, the Tackles by which the lower Yards are hoisted and lowered.

Tigger, a Rope reeved through a single Block.

Tibing, shifting a Boom Sail from one Side to the other.

Jury Mast, a temporary Mast, when the proper one has been carried away.

K.

Kink, a Twist in a Rope the contrary way to which it is twisted.

Knee, a Piece of Timber with two Branches to strengthen other Timbers.

L.

Lade, to throw out the Water with Buckets.

The Ship labours; that is, rolls and tumbles much.

Land fall, the first Land discovered after a Voyage.

Land-locked, is when a Ship lies within a Bay or Creek, and sheltered all round by the Land, so that no Point is open to the View of the Sea.

To lash, signifies to bind.

To launch a Ship, is to put her forth off the Dock into the Water.

Launch hoe; viz. Hoist no more, when a Thing is hoisted high enough, and that Orders are given to stop.

To Lay the Land; that is, to lose the Sight of it.

Lee-Shore, is that against which the Wind blows.

Have a Care of the Lee-lurch, viz. Take Care not to throw the Sails a-back.

She lies by the Lee; that is, a Ship has all her Sails a-back, lying flat against the Mast and Shrouds.

Leewards, is with the Wind, or on that Point towards which the Wind blows.

Larboard and Luff see *Cun.*

Limbers, Holes cut through the Timbers at the Bottom of the Ship, for the Water to run to the Well.

M.

Mizen. The *Mizen-mast* is that which is abaft, or nearest to the Stern of the Ship: It is remarkable that all the maritime Nations call this Mast the same, nearly, except the French, who call it *Artimon*, and the Foremast they call *Misaine*.

Set the Mizzen; that is, haul out the Mizzen-sail.

Change the Mizzen; bring the Yard to the other Side of the Mast.

Peek the Mizzen; that is, point the Yard higher up.

To moor a Ship, is to lay out her Anchors in such Manner as she may most conveniently ride with Safety.

To mouse, to secure, to confine.

N.

Neap-Tides, are those Tides which are in the first and last Quarter of the Moon, and are not so high, so low, nor so swift, as the Spring-tides.

A Ship is beneaped; that is, when the Water does not flow high enough to bring her from off the Ground, or over the Bar, or out of a Dock.

Mo-man's-land, abaft the Belfry.

O.

Oakum, old Ropes reduced to Hemp again.

The Offing, is to the Seaward from the Land; as, when a Ship or a Fleet is said to lie in the *Offing*, it means, that they, from whom that Expression has come, were in a Ship which lay in Harbour, or were near the Shore, when the others were to the Seaward of them.

Offward, signifies contrary to the Shore.

She stands for the Offing; the Ship sails from the Shore, into the Sea, or from the Landward to the Seaward.

Overhaul, to examine strictly; also to let down a Tackle, or loosen the Laniards.

P.

To Pay a Seam, is to lay hot Pitch & Tar on after Caulking.

To Parcel a Seam, (is after the Seam is caulked) to lay over it a narrow Piece of Canvas, and then pour hot Pitch and Tar on it.

Partners, Holes in the Deck strengthened, through which the Masts go.

To Purchase an Anchor; that is, to loosen it so as to be able to hawl it up.

The Captain Purchases a-pace, viz. draws in the Cable a-pace.

To Pay, to lay on a Coat of Pitch, Tallow, Turpentine, &c. *To pay out the Cable*, is to slacken it, to let the Ship go a-stern.

Peep, the highest and aftmost Deck of a Ship.

Preventer, an additional Rope, as preventer Braces, &c.

Q.

Quarter-winds, are when the Wind blows in abast the Main-mast Shrouds, even with the Ship's Quarters.

A Quail, is a Rope or Cable laid up round, one *Fake* over another; and the *Fake* is called *Quailing*. See *Fake*.

Quarantine, the Time a Ship's Company is confined, when they come from a sickly Place, before they are allowed to associate with the Inhabitants.

Quarter-Deck, the uppermost between the Main and Mizzen-mast.

R.

Rake, to incline, or lean fore and aft.

Ratling, small Ropes tied a-cross the Shrouds, by which the Men ascend to the Mast-head.

A Reach, is the Distance between any two Points of Land, that lie in a right Line, from each other.

To Reeve, is to put a Rope through a Block; so *Unreeving the Rope*, is to pull the Rope out of the Block, but *Reef* is part of a Sail taken in.

To Ride; a Ship is said to *Ride at Anchor*, when she does not drive with the Wind or Tide, but is held fast by the Anchors.

To Ride a-thwart, is to ride with the Ship's Side to the Tide.

To Ride betwixt Wind and Tide, is when the Ship rides at Anchor, and that the Wind and Tide are contrary, and have equal Strength.

A Road, is any Place near the Land, where Ships may ride at Anchor; from whence a Ship so riding, is called a *Rounder*.

Rouse-in, signifies to *haul-in*, and is properly applicable only to the *Hawser* or *Cable*, in ordering it to be made straight, tight, or *tort*, when it is slack.

Rudder, see *Helm*.

Running Rigging, that which moves over pulleys, opposed to that which is fixed, called *standing Rigging*.

To Serve a Rope, is to wind something about it to preserve it from fretting, or wearing out.

A Service; the Thing wound about a Rope is so called.

To Seize, is to make fast or bind.

Sennit, five, seven, or nine Yarns braided together.

Sheaves, the pulleys over which the Ropes pass in the blocks.

Sheers, the Engine used to take the lower Masts out, or to fix them in. *Shivering*, is when the Sails shake in the Wind.

The Sound, is to try with a Line, or other Thing, how deep the Water is.

To Splice Ropes; that is, to untwist two Ends of Ropes, and fasten them together, by interlaying the Strands.

The Sails are Split; that is, blown to Pieces.

Shrouds, the strong standing Rigging that supports the Masts, on each Side the Ship.

Spindle, the small Iron Pin, to which the Vane is fixed at the Mast-head.

Spring-tides, are the Tides at new and full Moon, which flow highest, ebb lowest, and run strongest.

The Bowsprit Steeves; viz. stands too upright.

Stem, the Foremost Part of the Vessel.

Stern, the Aftermost Part of the Ship.

Strand, one of the Twists of a Rope.

Swab, a sort of Mop made of Rope-yarne.

T.

Tack-about; that is, bring the Ship's Head about to lie the other Way.

Tackle, the Ropes reeved through the Blocks for hoisting or lowering any Thing. In Mechanics this is called a Pulley.

Tally-ast the Sheets; a particular Term used for hawling ast the Sheets of the Main or Fore-sail.

A Windward Tide, is a Tide that runs against the Wind.

Taught, signifies the same as straight, tight, or secure.

A Leeward-Tide, when the Wind and Tide both go one Way,

Thwart-Ships, a-cross the Ship.

Tiller, the Bar or Lever used to manage the Rudder in steering.

To Tide it up, is to go with the Tide against the Wind; and on the Tide's altering, to lie at Anchor till it serves again.

In four Tide and half Tide; that is, it will run sooner by three Hours by the Shore than in the *Offing*.

To Trawl, that is, to drag any Thing after the Ship or Boat.

The Ship's Traverse, the various Courses she runs in a Day.

V.

Vane, the Weather-cock.

To Veer; that is, to let out; as Veer more Cable, &c. also to turn the *Capstern* round.

The Wind Veers, viz. it shifts or changes about from one Point to another.

Voyel, a Rope made fast to the Cable, and brought to the Capstern, to heave up the Anchor.

W.

Waist, that Part of the Ship between the Fore-castle, and Quarter-Deck.

Watch, that Part of the Ship's Crew that keeps Guard; also the time they are upon Guard.

The Wake of the Ship, is the Eddy of the Water that the Ship makes in passing through it.

To Weather a Ship; that is, to go to Windward of her.

To Weigh, to heave up the Anchor and prepare for Sailing.

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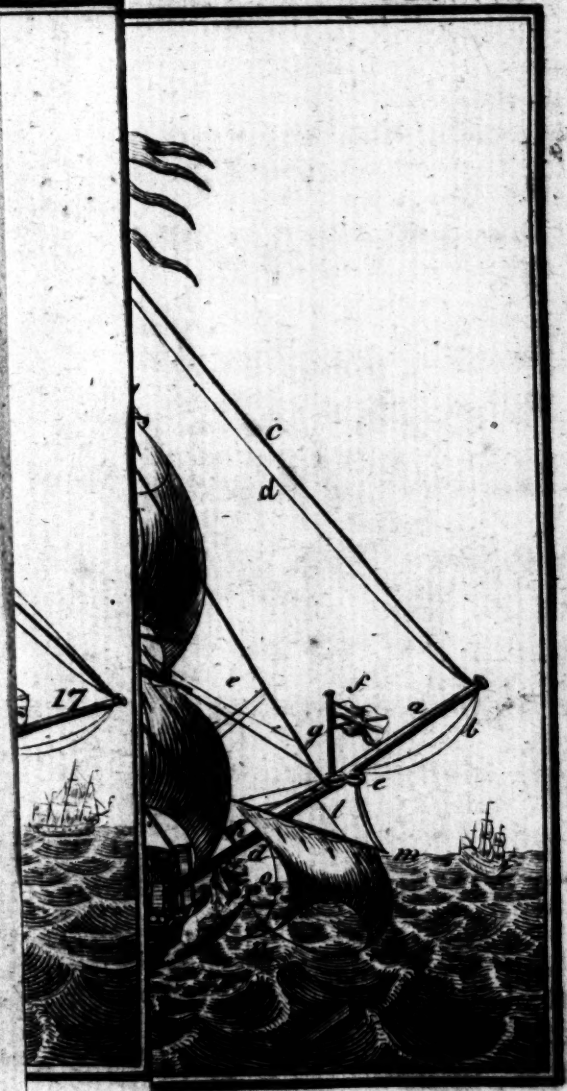
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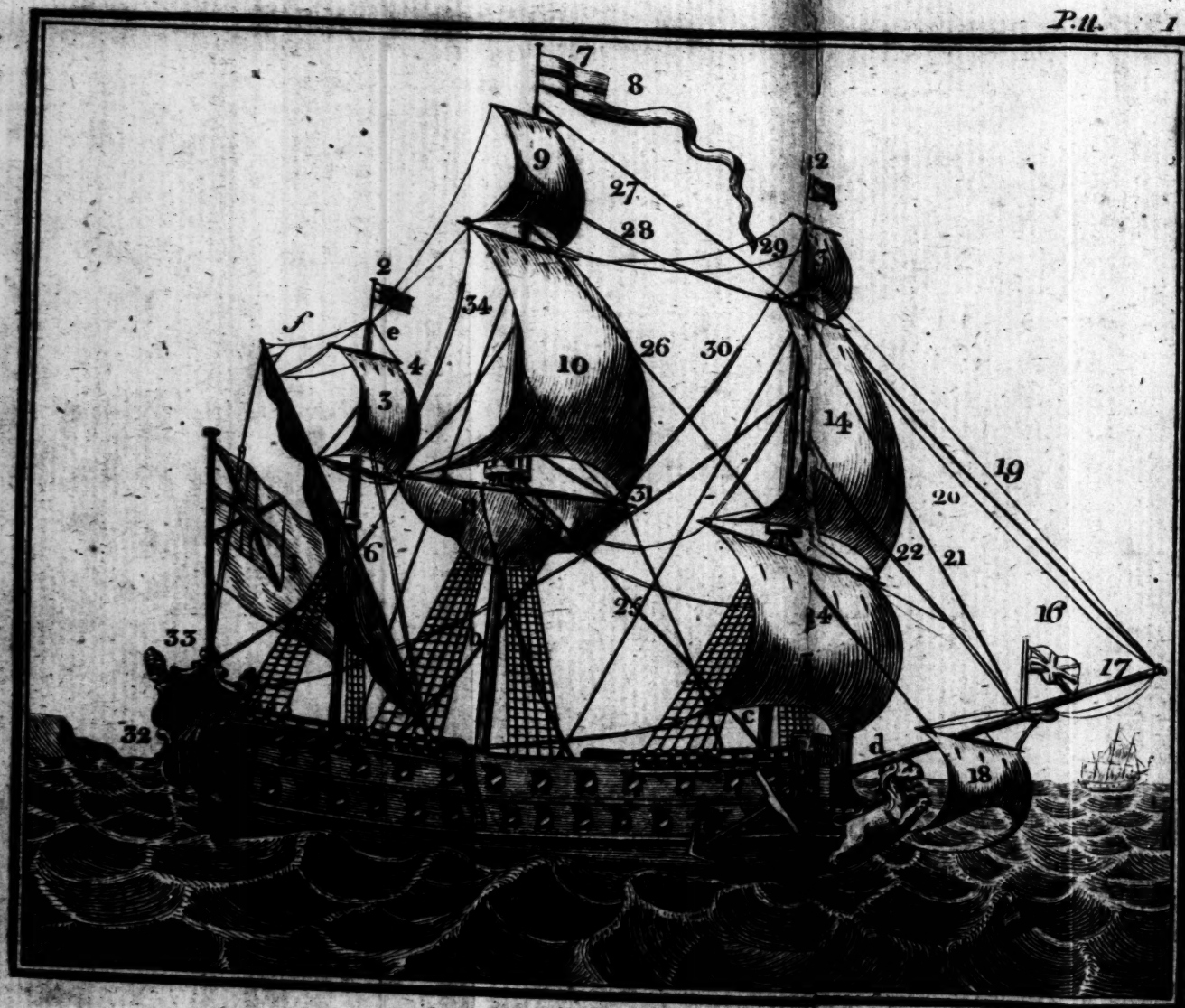
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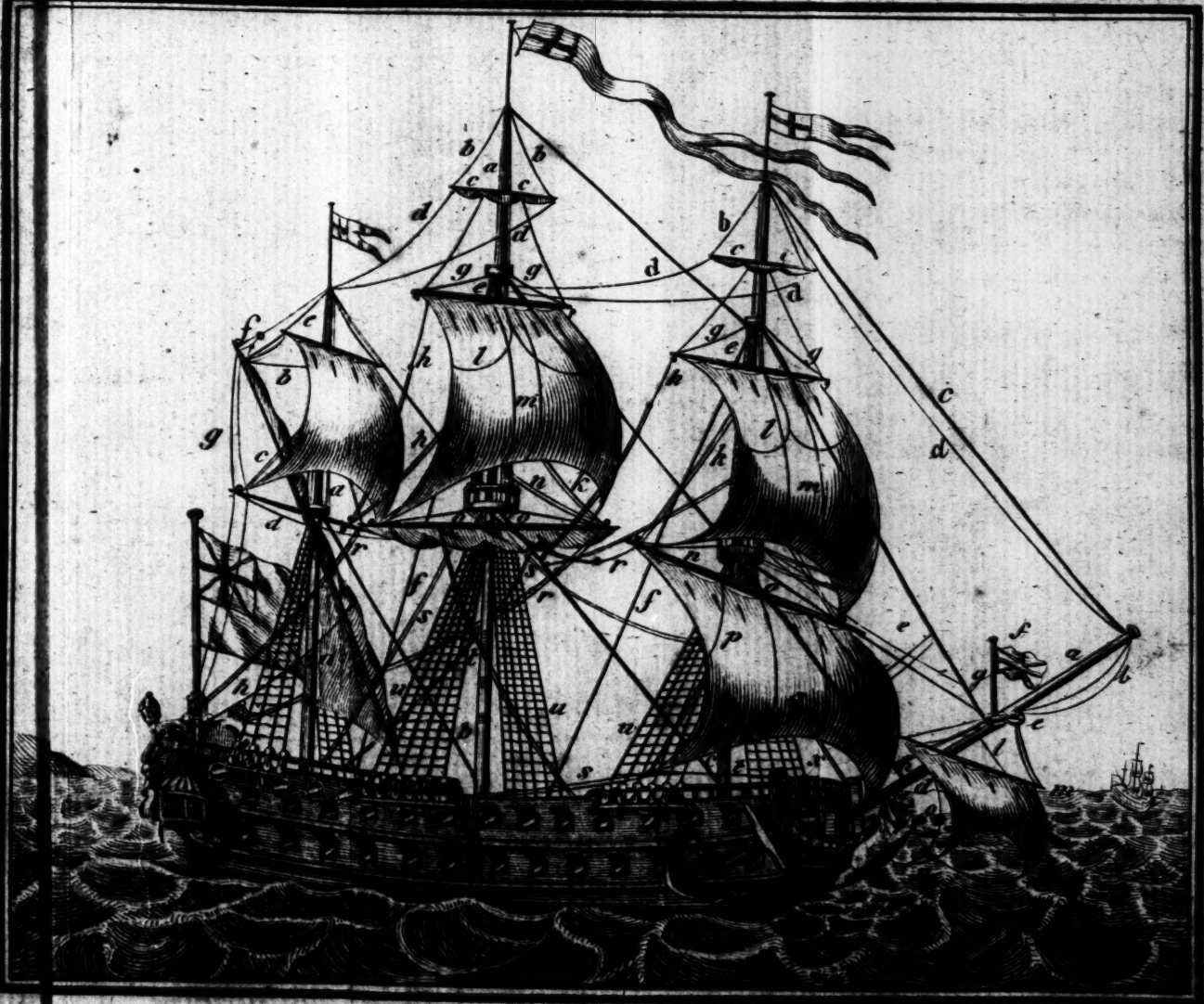
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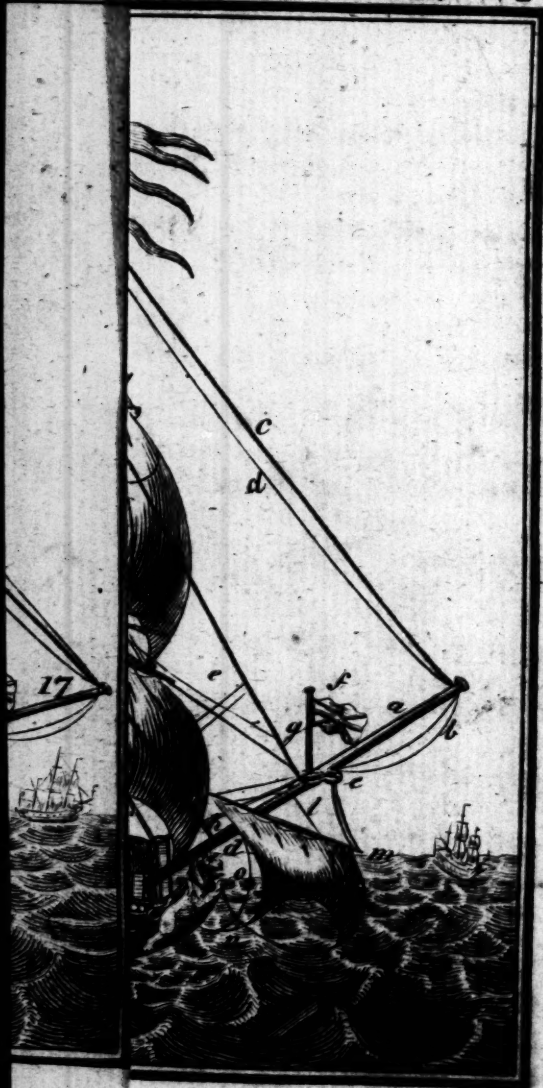
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To Wind a Ship; viz. to bring her Head about.

How Winds the Ship? that is, upon what Point of the Compass she lies with her Head.

Windlass, a large Piece of Timber placed a thwart Ships, used in Merchants Ships to heave up the Anchor.

To Warp a Ship in or out of Harbour, is to carry her against the Wind, by Means of carrying out an Anchor in the Boat, and dropping it; then to hawl upon it, and so carry out another Anchor, after the Ship is come up to the first Anchor.

To Would, that is to bind Ropes about the Mast, or the like, to keep on a Fish, or strengthen it.

Y.

The Ship Yaws; viz. she goes in and out, and does not steer steady.

A SHIP's TACKLING described.

See the Draught of a S H I P annexed.

- | | | | |
|----|-----------------------|----|----------------------------|
| 1 | Ensign | 19 | Fore-top gallant stay |
| 2 | Mizen-vane | 20 | Fore-top gallant-bow lines |
| 3 | Mizen-top-sail | 21 | Fore-top-mast-stay |
| 4 | Mizen-top-sail-yard | 22 | Fore-top-sail-bow-lines |
| 5 | Cross-jack-yard | 23 | Crane-line |
| 6 | Mizen-yard | 24 | Fore-stay |
| 7 | Main-vane | 25 | Main-stay |
| 8 | Main pendant | 26 | Main-top-mast-stay |
| 9 | Main-top-gallant-sail | 27 | Main-top-gallant-stay |
| 10 | Main-top-sail | 28 | Main-top-gallant-bow-lines |
| 11 | Main-sail | 29 | Fore-top-gallant-braces |
| 12 | Fore-vane | 30 | Fore-top-sail-braces |
| 13 | Fore-top-gallant-sail | 31 | Main-top-sail-bow-lines |
| 14 | Fore-top-sail | 32 | Galleries |
| 15 | Fore-sail | 33 | Poop Lanthorns |
| 16 | Jack | 34 | Main-top-sail-braces |
| 17 | Jib-boom | | |
| 18 | Sprit-sail | | |

- a Mizzen-mast
- b Main-mast
- c Fore-mast
- d Powsprit
- e Mizzen-top-fail-lifts
- f Mizzen-crow-foot
- g Hoisting line for a Flag, or pendant
- h Mizzen-sheet
- a Mizzen-top-mast
- b Mizzen-top-fail-brace
- c Main-top-fail-clew-line
- d Mizzen-top-fail-sheet

Main-Mast.

- a Main-top-gallant-mast
- b Main-top-gallant-lifts
- c Main-top-gallant-yard
- d Main-top-gallant-braces
- e Main-top-mast
- f Main-top-mast-back-stay
- g Main-top-fail-lifts
- h Main-top-fail-braces
- k Main-top-fail-clew-lines
- l Main-top-fail-leech-lines
- m Main-top-fail-bunt-lines
- n Main-lifts
- o Main-yards
- r Main-braces
- s Main-sheets
- t Main-tacks
- u Main-shrouds

Fore-Mast.

- a Fore-top-gallant-mast

- b Fore-top-gallant-lifts
- c Fore-top-gallant-yard
- d Fore-top-gallant-braces
- e Fore-top-mast
- f Fore-top-mast-back-stay
- g Fore-top-fail-lifts
- h Fore-top-fail-braces
- k Fore-top-fail-clew-lines
- l Fore-top-fail-leech-lines
- m Fore-top-fail-bunt-lines
- n Fore-lifts
- o Fore-yard
- p Fore-leech-lines
- q Fore-bunt-lines
- r Fore-braces
- s Fore-sheets
- t Fore-tacks
- u Fore-shrouds
- v Fore-clew-garnet

Bowsprit.

- a Jib-boom
- b The Horse
- c Jib-guy
- d Jib-haliards
- e The kees
- f The Jack
- g The Jack-staff
- h Horse on the Bowsprit
- i Standing-lifts for sprit-fail-yard
- m Sprit-fail-yard
- n Sprit-fail-sheets
- o Sprit-fail-clew-lines

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T H E

S E A M A N ' S

V A D E - M E C U M.

The Names of the Masts, Yards, and Ropes of Rigging respectively belonging to each Mast and Yard of a Ship compleat.

Rigging to the Bow-sprit, and Sprit-sail-yard.

SHEETS, Horse, Clew-lines, Slings for the Yard, Haliards, Lifts, Garnets, Standing-lifts, Pendants for Braces, Falls to them, Woolding, Bunt-lines, Man-ropes, Fore-stay-sail Netting, Bob-stays.

Rigging to the Fib-boom, and Sprit-sail Top-sail-yard.

Stay, Guy, Haliards, Out-hauler, In-hauler, Down-hauler, Sheets, Braces, Clew-lines, Lifts, Horses, Parrel-Rope, Traveller.

Rigging to the Fore-mast and Fore-yard.

Pendants of Tackles, Runners of Tackles, Falls of Tackles, Shrouds, Laniard, Stay, Collar, Laniard, Put-locks, Parrel-rope, Clew-garnets, Bow-lines, Bridles, Pendants for Braces, Falls to them, Bunt-lines, Sheets, Tacks,
B Lift,

The Seaman's Vade-Mecum.

Lifts, Leech-lines, Jeers, Leg of the Catharpings, Falls to them, Stoppers of the Top-sail, Sheets, Tie, Haliards.

Rigging to the Fore-top-mast, and Fore-top-sail-yard.

Pendants of Top-rope, Falls to the same, Shrouds, Laniards, Stay, Laniard, Lifts, Puttocks, Tie, Runner, Haliards, Bow-lines, Bridles, Clew-Lines, Pendant of Tackles, Falls to them, Sheets, Parrel-ropes, Leech-lines, Braces, Pendant, Bunt-lines, Standing-back-stays, Laniards, Nave-line.

Rigging to the Fore-top-gallant-mast, and Fore-top-gallant-yard.

Stay, Tie, Haliards, Lifts, Braces, Clew-lines, Bow-lines, Bridles, Parrel-rope, Shrouds, Laniards.

Rigging to the Main-mast, and Main-yard.

Pendant of Tackle, Runners of Tackle, Falls of Tackle, Lifts, Shrouds, Laniards, Stay, Collar, Laniards, Pendant of Garnet, Guy, Fall of the Garnet, Tacks Taper-laid, Sheets, Clew-garnets, Bow-lines, Bridles, Pendants of Braces, Falls, Jeers, Parrel-rope, Leech-lines, Bunt-lines, Slab-line, Puttocks, Legs of Catharpings, Falls to them, Stoppers of Fore-sheets, Tackles to set up Shrouds, Boufing-Tackles, Tie, Haliards.

Rigging to the Main-top-mast, Main-top-sail-yard, and Cross-jack-yard.

Pendant of Tackle, Falls to them, Shrouds, Laniards, Standing-back-stays, Laniards, Stay, Laniards, Lifts, Braces, Pendants, Bow-lines, Bridles, Pendants of Top-rope, Falls to them, Clew lines, Tie, Runners, Haliards, Leech-lines, Bunt-lines, Puttocks, Parrel-rope, Sheets, Nave-line.

Rigging

Rigging to the Main-top-gallant-mast, and Main-top-gallant-yard.

Stays, Braces, Bow-lines, Bridles, Parrel-rope, Tie, Haliards, Clew-lines, Lifts, Shrouds, Laniards.

Rigging to the Mizzen-mast, and Mizzen-yard.

Shrouds, Laniards, Stay, Laniards, Haliards, Parrel-rope, Trufs, Sheet, Tack, Bow-lines, Brailes.

Rigging to the Cross-jack.

Lifts, Braces, Standing lifts, Laniards.

Rigging to the Mizzen-top-mast, and Mizzen Top-sail-yard.

Shrouds, Laniards, Puttocks, Braces, Bow-lines, Bridles, Tie, Haliards, Lifts, Parrel-rope, Stay, Clew-lines.

Necessaries.

Cables, Hawfers, Tackles, Voyol, Cat-rope, Stoppers, Shank-painters, Buoy-ropes, Fish-hook Rope and Fall, Boat-painters.

Directions for making of Masts and Yards according to Proportion for the Merchants Service.

FOR the Main-mast. As 7 is to 20, so is the Breadth at the Beam, to the Length thereof; and Three Quarters the Breadth at the Beam is the Thickness; Inches for Feet.

The Fore-mast is seven-eighths of the Main-mast, and Thickness proportionable.

The Mizzen-mast two-thirds of the Main-mast, and Thickness proportionable.

The Bow-sprit three-fifths of the Main-mast, and for Thickness one Inch less than the Main-mast.

The Seaman's Vade-Mecum.

The Main-top-mast, three-fifths, or four-sevenths of the Main-mast, and Thickness proportionable.

The Fore-top-mast, seven-eighths of the Main-top-mast, and Thickness proportionable.

The Mizzen-top-mast four-sevenths of the Main-top-mast, and Thickness proportionable.

The Main-top-gallant-mast, five-twelfths of the Main-top-mast, and Thickness proportionable.

The Fore-top-gallant-mast, seven-eighths of the Main-top-gallant-mast, and Thickness proportionable.

The Jib-boom is two-thirds of the Bowsprit.

The Mast-head of any Mast from the Cross-trees to the Head, requires one-tenth of the Mast.

For the Yards.

The Main-yard, seven-tenths of the Main-mast.

The Fore-yard, seven-eighths of the Main-yard.

The Mizzen-yard must be a Medium between both.

The Main Top-sail-yard, Sprit-sail-yard, and Cross-jack yard, two-thirds of the Main-yard.

The Fore-top-sail-yard, seven-eighths of the Main-top-sail-yard.

The Main-top-gallant-yard, three-fifths of the Main-top-sail-yard.

The main-top-gallant-yard three-fifths of the Main-top-gallant-yard.

The Mizzen-top-sail-yard, and Sprit-sail-top-sail-yard are the same Length with the Main-top-gallant-yard.

The Proportions of Lower Masts.

Every Inch thick at the Partners, requires nine-tenths in the Middle, and two-thirds at the End. *Note,* The Middle here meant is the Medium between the Partners, and the very Extremity of the Mast.

The Proportion for Ships of War, as used in His Majesty's Yard, is as follows:

TO find the Length of the Main-mast, take half the Length of the Keel, and the Breadth of the Beam, add them together, and divide them by 3, and that is your Length in Yards.

Your Fore-mast must be eight-ninths of your Main-mast.

The Mizzen-mast must be two-thirds of your Main-mast, if it stands upon Deck; but if in the Hold, three Quarters of your Main-mast.

The Bow sprit must be eight-ninths of your Fore-mast.

The Main-top-mast, three fifths of your Main-mast.

The Main-top-gallant-mast, half of your Main-top-mast.

The Fore-top-mast, three-fifths of your Fore-mast.

The Fore-top-gallant mast, half of your Fore-top-mast.

The Mizzen-top-mast, three-fifths of your Mizzen-mast.

To find the Length of your Main-yard, take thrice the Breadth of your Beam and a half, add them together, and divide by 3; and that gives you the Length in Yards.

The Main-top-fail-yard, half your Main-yard.

The Main-top-gallant-yard, half of your Main-top-fail-yard.

The Fore-top-fail-yard, half of your Fore-yard.

The Fore-top-gallant-yard, half of your Fore-top-fail-yard.

The Cross-jack-yard, must be the Length of your Main-top-fail-yard.

Proportions for masting and yarding a Ship in India, or any Fair Weather Country.

FOR the Main-mast, twice and a half the Breadth of the Ship.

Main-yard, twice ditto.

Main-top-mast, two-thirds of the Main-mast.

Main-top-sail-yard, two-thirds of the Main-yard.

Main-top-gallant-mast, two-thirds of the Main-top-mast.

Main-top-gallant-yard, two-thirds of the Main-top-sail-yard.

Fore-mast is nine-tenths of the Main-mast.

Fore-yard, nine-tenths of the Main-yard.

Fore-top-mast, two-thirds of the Fore-mast.

Fore-top-sail-yard, two-thirds of the Fore-yard.

Fore-top-gallant-mast, two-thirds of the Top-mast.

Ditto-yard, two-thirds of the Top-sail-yard.

Mizen-mast, if steep in the Gun-deck, two-thirds of the Main-mast, if in the Hold, three-fourths.

Mizen-top-mast, two-thirds of the Mizzen-mast, if steep in the Hold.

Cross-jack-yard, two-thirds of the Main-yard.

Mizen-top-sail yard, two-thirds of the Cross-jack-yard.

Bow-sprit, two-thirds of the Main-mast.

Jib-boom, two-thirds of the Bow-sprit.

Sprit-sail-yard, two-thirds of the Main-yard.

OF RIGGING a SHIP.

Rigging for the Fore-mast.

TWO-thirds of the Length of the Mast is the first Length of the Shrouds; and afterwards give Allowance according to their Rake, and as they rise upon the Head of the Mast.

Half the Length of the Shroud is the Length of the Pendants; if double, two-thirds.

The Length of the Mast is the Length of the Stay.

Thrice the Length of the Shroud is the Length of the Lifts.

Three Times the Length of the Shrouds is the Length of the Clew-garnets.

Twice the Length of the Mast, from the Deck to the Cross-tree, is the Length of the Bunt-lines.

Legs, Horses, one Length and a fifth of the Yard.

Twice

Twice the Length of the Main-yard is the Length of the Leech-lines.

Twice the Length of the Main-yard for the Braces.

Parrel-rope, two-thirds of the Yard.

Two and a half the Length of the Main-yard for the Fore-sheets.

Four Times the Length of the Mast is the Length of the Jeers.

Twice the Length of the Main-yard is the Length of the Bunt-lines; and the same Length for the Top-sail-sheets.

Rigging for the Main-mast.

The Length of the Shrouds is the Length of the Pendants; if double, two-thirds of the Shrouds.

Two-thirds the Length of the Mast, is the Length of the Shrouds.

The Length of the Mast, and one-eighth more, is the Length of the Stay.

Four Times the Length of the Mast, from the Deck to the Cross-trees, is the Length of the Jeers; if four-fold Jeers, five Times.

A Length and an half of the Main-yard, is the Length of the Studding-sail Haliards,

Two Lengths and two-thirds of the Main-mast, is the Length of the Stay-sail Haliards.

Horses, one Length and one-third of the Yard.

Parrel-ropes, two-thirds of the Yard.

Three Times the Length of the Main-yard, is the Length of the Lifts.

Twice and an half the Length of the Main-yard, is the Length of the Braces.

The Length of the Main-yard, is the Length of the Bow-lines.

Twice and an half the Length of the Main-yard, is the Length of the Clew-garnet.

Bunt-lines must be four Times the Length of the Mast, for Falls and Legs.

Twice

Twice the Length of the Main-yard is the Length of the Leech-lines.

The Length of the Main yard, is the Length of the Tacks; Runners must be the same Length.

Twice and an half the Length of the Main-yard, is the Length of the Sheets.

Twice the Length of the Mast, is the Length of the Nave-line.

Twice the Length of the Main-yard, is the Length of the Top-sail-sheets.

Twice the Length of the Mast, is the Length of the Slab-line.

Rigging for the Mizzen-mast.

Four Times the Length of the Mast, from the Deck to the Cross-tree, is the Length of the Haliards.

Twice the Length of the Mast, from the Deck to the Cross-tree, is the Length of the Brails.

The Length and one-third of the Yard is the Length of the Sheet.

The Tacks about three Fathoms.

The Length of the Mast is the Length of the Shrouds.

Half the Shrouds is the Length of the Pendants.

The Length of the Main-yard is the Length of the Bur-ton-fall.

The Length of the Mast is the Length of the Stay, wanting the Length of the Head of the Mast, if it steps in the Hold.

The Length of the Cross-jack-yard is the Length of the Bow-lines.

Rigging for the Fore-top-mast.

One-third the Length of the Shrouds, is the Length of the Pendants.

Once the Length of the Mast, is the Length of the Shrouds.

Once

Once the Length of the Fore-yard, is the Length of the Burtons.

Pendants of the Burtons, half the Length of the Top-sail-yards; and Falls for them, twice the Length of the Yard.

Twice and an half the Length of the Fore-yard is the Length of the Lifts.

Thrice the Length of the Yard, is the Length of the Clew-line.

Twice and an half the Length of the Fore-yard, is the Length of the Braces.

Twice the Length of the Fore-yard, is the Length of the Bow lines.

Twice the Length of the Fore-top-sail-yard, is the Length of the Leech-lines.

Once the Length of the Top-mast, is the Length of the Tie.

Once and an half the Length of the Fore-yard, is the Length of the Runners.

Thrice the Length of the Fore-yard, is the Length of the Haliards.

Once and one-third the Length of the Mast, is the Length of the Stay.

Once and an half the Length of the Fore-yard, is the Length of the Back stays.

Twice the Length of the Fore-yard, is the Length of the Bunt-lines.

Rigging for the Main-top-mast.

Half the Length of the Shrouds, is the Length of the Pendants.

Once the Length of the Mast, is the Length of Shrouds.

Once and an half the Length of the Mast, is the Length of the Stay.

Twice and an half the Length of the Main-yard, is the Length of the Braces.

One-third of the Length of the Main-yard, is the Length of the Burtons; Pendants of the Burtons half the Length of

the

the Top-sail-yard, and Falls for Burtons is two Lengths and one-third of the Main-yard.

Twice and an half the Length of the Main-yard, is the Length of the Lifts.

Twice the Length of the Main-yard, is the Length of the Bunt-lines.

Thrice the Length of the Main-yard, is the Length of the Clew-lines.

Once the Length of the Top-mast-shrouds, is the Length of the Tie.

Once the Length of the Main-yard, is the Length of the Runners.

Three Times the Length of the Main-yard, is the Length of the Haliards.

Twice the Length of the Top-sail-yard, is the Length of the Leech-lines.

Twice the Length from the Deck to the Hounds, is the Length of the Bunt-lines.

Once and one-fourth the Length of the Main-shrouds, is the Length of the Top-rope.

Four Times the Length of the Main-mast, is the Length of the Top-rope-fall.

One-third of the Top-sail-yard, is the Length of the Pendants for Braces.

Once and an half the Length of the Yard, is the Length of the Back-stays.

Rigging for the Mizzen-top-mast.

One-third of the Shrouds, is the Length of the Pendants.

The Length of the Mast, from the Cross-trees to the Heel, is the Length of the Shrouds.

Once and an half the Length of the Mast, is the Length of the Stay.

Three Times the Length of the Mast, is the Length of the Lifts.

Once and one-third of the Length of the Mizzen-yard, is the Length of the Braces.

Once

Once and an half the Length of the Cross-jack-yard, is the Length of the Bow-lines.

Twice and an half the Length of the Cross-jack-yard, is the Length of the Cross-jack-braces; if double, two Lengths and an half of the Mizzen-yard.

Twice and an half the Length of the Cross-jack-yard, is the Length of the Sheets.

Twice and an half the Length of the Cross-jack-yard, is the Length of the Clew-lines.

Once and two-thirds the Length of the Mizzen-yard, is the Length of the Haliards.

Once the Length of the Top-mast, from the Cross-trees to the Heel, is the Length of the Tie.

Rigging for the Fore-top-gallant-mast.

Once the Length of the Mast, from the Cross-trees to the Heel, is the Length of the Shrouds.

Once and an half the Length of the Fore-yard, is the Length of the Stay.

Three Times the Length of the Mast, is the Length of the Lifts.

Twice and an half the Length of the Fore-yard, is the Length of the Braces.

Twice and an half the Length of the Fore-yard, is the Length of the Bow-lines.

Twice and an half the Length of the Fore-yard, is the Length of the Haliards.

Rigging for the Main-top-gallant-mast.

Once the Length of the Mast, from the Cross-trees to the Heel, is the Length of the Shrouds.

Two Lengths and one-fourth of the Top-mast-shrouds, is the Length of the Stay.

Thrice the Length of the Top-gallant-mast, is the Length of the Lifts.

Once the Length of the Yard, is the Length of the Parallel-rope.

Twice the Length of the Main-yard, is the Length of the Braces.

Twice

Twice the Length of the Main-yard, is the Length of the Bow-lines.

The Length of the Mast is the Length of the Tie.

Twice and one-fourth the Length of the Main-yard, is the Length of the Haliards ; if single, one Length and two-thirds of the Main-yard.

Twice the Length of the Main-yard, is the Length of the Top-rope.

For the Sprit-sail-yard.

Three Times the Length of the Yard, is the Length of the Haliards.

Three Times the Length of the Yard, is the Length of the Lifts.

Twice the Length of the Yard, gives the Length of the Clew-lines.

Twice the Length of the Fore-yard, is the Length of the Braces.

Twice the Length of the Yard, is the Length of the Bunt-lines.

For the Sheets, thrice the Length of the Yard ; and for the Pendants, one-third of the Yard,

To fix the Cables.

For every Foot by the Beam, allow half an Inch Circumference for the Sheet Cable ; the best Bower half an Inch less ; and the small Bower half an Inch less than the best.

For Anchors.

Take five hundred Weight for every hundred Tons Burthen ; and one hundred Weight for Foot by the Beam ; Half the Sum will be a proper Weight for the Bower Anchor.

To find a Ship's Tonnage.

Multiply the Length of the Keel, the Breadth of the Beam, and Depth of the Hold together ; the Product thence arising, being divided by 100, gives the Tonnage.

Number,

Number, Weight, and Size of *ANCHORS*
and *CABLES* for a Ship of each Class.

| Rate. | Guns. | Anchors | | | Cables | |
|---------|------------------------|----------------|----------------|---------|----------------|----------------------|
| | | N ^o | Weight of each | | N ^o | Size of each Inches. |
| | | | C. | qr. lb. | | |
| 1 | 100 Stream Kedge | 5 | 81 | 0 0 | 9 | 24 |
| | | 1 | 21 | 0 0 | 1 | 15 |
| | | 1 | 10 | 0 0 | | |
| 2 | 90 | 5 | 73 | 0 0 | 9 | 23 |
| | | 1 | 18 | 0 0 | 1 | 14½ |
| | | 1 | 9 | 2 0 | | |
| 3 | 80 | 4 | 70 | 0 0 | 8 | 22 |
| | | 1 | 16 | 0 0 | 1 | 13½ |
| | | 1 | 8 | 2 0 | | |
| | 70 | 4 | 58 | 2 0 | 7 | 20½ |
| | | 1 | 14 | 0 0 | 1 | 12½ |
| | | 1 | 7 | 2 0 | | |
| 4 | 60 | 4 | 56 | 2 0 | 7 | 19½ |
| | | 1 | 13 | 0 0 | 1 | 11½ |
| | | 1 | 6 | 2 0 | | |
| | 50 | 4 | 48 | 2 0 | 7 | 18½ |
| | | 1 | 11 | 2 0 | 1 | 11 |
| | | 1 | 6 | 0 0 | | |
| 5 | 40 | 4 | 37 | 3 0 | 7 | 17 |
| | | 1 | 9 | 3 0 | 1 | 10 |
| | | 1 | 5 | 0 0 | | |
| 6 | 24 | 4 | 29 | 1 0 | 6 | 15 |
| | | 1 | 7 | 2 0 | 1 | 8½ |
| | | 1 | 4 | 0 0 | | |
| | | 3 | 15 | 0 0 | 5 | 13 |
| Sloops. | | 1 | 7 | 0 0 | 1 | 8 |
| | | 1 | 3 | 2 0 | | |

C

A

A CORDAGE TABLE, shewing how many Fathom, Feet, and Inches of a Rope of any Size under 14 Inches, makes an Hundred Weight; with the Construction of the Table, and Rules to calculate the Weight of Ropes to any large Circumference.

| I. | F. | F. | I. | I. | F. | F. | I. | I. | F. | F. | I. |
|---------------|-----|----|----|---------------|----|----|----|---------------|----|----|----|
| 1 | 486 | 0 | 0 | 6 | 13 | 3 | 0 | 11 | 4 | 0 | 1 |
| $\frac{1}{4}$ | 311 | 0 | 2 | $\frac{1}{4}$ | 12 | 2 | 7 | $\frac{1}{4}$ | 3 | 5 | 0 |
| $\frac{1}{2}$ | 216 | 0 | 0 | $\frac{1}{2}$ | 11 | 3 | 0 | $\frac{1}{2}$ | 3 | 4 | 0 |
| $\frac{3}{4}$ | 158 | 4 | 1 | $\frac{3}{4}$ | 10 | 4 | 0 | $\frac{3}{4}$ | 3 | 3 | 1 |
| 2 | 121 | 3 | 0 | 7 | 9 | 5 | 6 | 12 | 3 | 2 | 3 |
| $\frac{1}{4}$ | 96 | 0 | 0 | $\frac{1}{4}$ | 9 | 1 | 5 | $\frac{1}{4}$ | 3 | 1 | 5 |
| $\frac{1}{2}$ | 77 | 4 | 6 | $\frac{1}{2}$ | 8 | 3 | 7 | $\frac{1}{2}$ | 3 | 0 | 8 |
| $\frac{3}{4}$ | 64 | 1 | 7 | $\frac{3}{4}$ | 8 | 0 | 6 | $\frac{3}{4}$ | 2 | 5 | 11 |
| 3 | 54 | 0 | 0 | 8 | 7 | 3 | 6 | 13 | 2 | 5 | 3 |
| $\frac{1}{4}$ | 46 | 0 | 0 | $\frac{1}{4}$ | 7 | 0 | 10 | $\frac{1}{4}$ | 2 | 4 | 7 |
| $\frac{1}{2}$ | 39 | 4 | 0 | $\frac{1}{2}$ | 6 | 4 | 4 | $\frac{1}{2}$ | 2 | 4 | 0 |
| $\frac{3}{4}$ | 34 | 3 | 4 | $\frac{3}{4}$ | 6 | 2 | 1 | $\frac{3}{4}$ | 2 | 3 | 5 |
| 4 | 30 | 2 | 3 | 9 | 6 | 0 | 0 | 14 | 2 | 2 | 10 |
| $\frac{1}{4}$ | 26 | 5 | 5 | $\frac{1}{4}$ | 5 | 4 | 1 | | | | |
| $\frac{1}{2}$ | 24 | 0 | 0 | $\frac{1}{2}$ | 5 | 2 | 3 | | | | |
| $\frac{3}{4}$ | 21 | 3 | 2 | $\frac{3}{4}$ | 5 | 0 | 8 | | | | |
| 5 | 19 | 2 | 7 | 10 | 4 | 5 | 1 | | | | |
| $\frac{1}{4}$ | 17 | 3 | 9 | $\frac{1}{4}$ | 4 | 3 | 9 | | | | |
| $\frac{1}{2}$ | 16 | 0 | 4 | $\frac{1}{2}$ | 4 | 2 | 5 | | | | |
| $\frac{3}{4}$ | 14 | 4 | 2 | $\frac{3}{4}$ | 4 | 1 | 2 | | | | |
| 6 | 13 | 3 | 0 | 11 | 4 | 0 | 1 | | | | |

The Use of the Cordage-Table.

THE Letters *I. F. F. I.* at the Top of the Table signify *Inches, Fathom, Feet and Inches*. The first Column being the Girt or Circumference of the Rope in Inches and Quarters, and the other three the Fathoms, Feet and Inches that make up an Hundred Weight of such a Rope. One Example will make it plain.

Suppose I desire to know how much of a 7 Inch Rope will make an Hundred; find the 7 in the 5th Column under *I.* or Inches Girt of the Rope, and against that, in the sixth, seventh, and eighth Columns, you find 9 | 5 | 6; which shews, that (in a Rope of 7 Inches) 9 Fathom, 5 Feet, and 6 Inches, is required to make an Hundred Weight: And so in a 9 Inch Rope, 6 Fathom makes an Hundred Weight: And in a three Inch Rope, 54 Fathom makes an Hundred Weight, &c.

The Construction of this TABLE is from hence.

A Rope of 1 Inch about, requires 486 Fathom to make up an Hundred Weight; and, as the superficial Content of all Circles are in Proportion to the Squares of their Diameters, (and consequently to the Squares of their Circumferences) it will follow, that as a Rope of 1 Inch in Circumference, whose Square is also 1, has 486 Fathom to an Hundred Weight; 486 divided by the Square of the Circumference, or Girt of any other Rope, the Quotient will give the Number of Fathoms in an Hundred Weight: As for Example, In a 9 Inch Rope, 9 Times 9 is 81, by which divide 486, the Quotient is 6, the Fathoms in an Hundred Weight: And so for a 3 Inch Rope, 3 Times 3 is 9, by which divide 486, the Quotient is 54 Fathom to an Hundred Weight, as in the Table; and where there is a Fraction in the Division, it may be reduced to Feet and Inches; 6 Feet being a Fathom, and 12 Inches being a Foot.

A Table shewing the Weight of any Cable or Rope of 120 Fath. in Length, and for every half In. from 3 In. to 24 in Circumference.

| In. | C. | Q. | | In. | C. | Q. |
|-----|----|----|--|-----|-----|----|
| 3 | 2 | 1 | | 14 | 49 | 0 |
| 3½ | 3 | 0 | | 14½ | 52 | 2 |
| 4 | 4 | 0 | | 15 | 56 | 1 |
| 4½ | 5 | 0 | | 15½ | 60 | 0 |
| 5 | 6 | 1 | | 16 | 64 | 0 |
| 5½ | 7 | 2 | | 16½ | 68 | 0 |
| 6 | 9 | 0 | | 17 | 72 | 1 |
| 6½ | 10 | 2 | | 17½ | 76 | 2 |
| 7 | 12 | 1 | | 18 | 81 | 0 |
| 7½ | 14 | 0 | | 18½ | 85 | 2 |
| 8 | 16 | 0 | | 19 | 90 | 1 |
| 8½ | 18 | 0 | | 19½ | 95 | 0 |
| 9 | 20 | 1 | | 20 | 100 | 0 |
| 9½ | 22 | 2 | | 20½ | 105 | 0 |
| 10 | 25 | 0 | | 21 | 110 | 1 |
| 10½ | 27 | 2 | | 21½ | 115 | 2 |
| 11 | 30 | 1 | | 22 | 121 | 0 |
| 11½ | 33 | 0 | | 22½ | 126 | 2 |
| 12 | 36 | 0 | | 23 | 132 | 1 |
| 12½ | 39 | 0 | | 23½ | 138 | 0 |
| 13 | 42 | 1 | | 24 | 144 | 0 |
| 13½ | 45 | 2 | | | | |

I chose to instance in a Cable of the Length above-mentioned, because Yarn set at 200 Fathom, will, in the laying of a Cable, work up or shorten to 120 Fathom; Cable-laid Ropes working in about two Parts in five, but if it is at half Cable, or a Part of a Cable of any other Length, the Weight of 120 Fathom being found by the Table, the Weight of any lesser Part is easily found in Proportion to its Length.

The Use of the TABLE.

THE first Column marked *I.* for *Inches*, is the Thickness or Circumference of the Cable to every half Inch from 3 to 24; the second and third, marked *C. Q.* for *Hundreds* and *Quarters*, are the Hundreds and Quarters that it will weigh if 120 Fathom in Length. As for Instance, suppose a Cable of fourteen Inches and an half; look against $14\frac{1}{2}$ in the fourth Column, and you find against it in the other Column, 52 | 2; which shews that 120 Fathom of Cable of 14 Inches and a half about, will weigh 52 Hundred 2 Quarters, or 52 Hundred and an half; and so in others. And any of a lesser Length, will weigh in Proportion.

The Construction of this Table is from hence, that as all Cables are solid Bodies, and may properly come under the Denomination of Cylinders; and as such the Weight of Cables of any determinate Length will be in Proportion to the Squares of their Circumferences. From this Foundation, and Experience has formed this general brief Rule, viz. *Multiply the Thickness of the Cable by itself, and one Fourth of that Product is the Weight of 120 Fathom.* As for Instance; suppose a Cable of 12 Inches, 12 Times 12 is 144, the Quarter of which is 36, the Weight of 120 Fathom of a Cable of 12 Inches; as you see in the Table.

Note, This Table gives the utmost Weight of Cables of the Length and Size proposed, and something, though inconsiderably, differs from the foregoing. As for Instance; in the foregoing Table, 6 Fathom of a 9 Inch Rope makes an Hundred Weight, and consequently 120 Fathom should be just 20 Hundred Weight, but in this it makes 20 Hundred and 1 Quarter; but the Difference is inconsiderable, and the Cables never exceed the Weight here proposed.

The following TABLE will be found very accurate and useful, in which every Rope was weighed, or accurately estimated.

THE
Length, Size, and Weight

OF THE
R I G G I N G

OF A
SHIP of 600 Tons.

*The Length and Size of the Rigging
of a Ship of 600 Tons.*

| | Size | Length | | Weight | | |
|--|-----------------|------------------|------------------|--------|-----|----|
| | | F. | F. | C. | qr. | lb |
| Main Stay ————— | 12 | | 15 | 4 | 2 | 14 |
| Fore Stay ————— | 11 | 10 | | | | |
| Main Collar ————— | | 5 | | | | |
| Main Shrouds — 7 Φ Side ————— | 7 | 120 | 15 | 4 | | 14 |
| Fore Shrouds — 6 Φ Side ————— | | 100 | | | | |
| Main Tack ————— | | 18 | | | | |
| Main and Fore Top Ropes, and } Topfail Sheet Straps ————— } | 7 $\frac{1}{4}$ | | 238 | 31 | | 13 |
| Fore Tacks ————— | 7 | | 44 | 5 | 1 | 18 |
| Main Topfail Sheets, and Main and } Fore Pendants ————— } | 6 $\frac{1}{2}$ | | 14 | 1 | 2 | 13 |
| Runners, Fore Topfail Sheets, and } Bob Stays ————— } | 6 $\frac{1}{4}$ | | 6 | 6 | | 13 |
| Mizen Stay—Cable laid ————— | 6 | 10 | | | | |
| Main Topmast Stay—ditto ————— | | 18 | | | | |
| Fore Topmast Stay—ditto ————— | | 12 $\frac{1}{4}$ | | | | |
| Mizen Shrouds—4 Φ Side ————— | 5 $\frac{1}{2}$ | 60 | 40 $\frac{1}{2}$ | 3 | 2 | |
| Main Topmast Backstays—3 Φ } Side, and Strapping ————— } | | 100 | | | | |
| Main Topfail Tie, 4 Strands ————— | | 20 | | | | |
| | | | 180 | 10 | 3 | 11 |

| <i>The Length and Size of the Rigging of a Ship of 600 Tons.</i> | | Size | Length | | | Weight |
|--|-----------------|------|--------|-----|----|--------|
| | | Inch | F. | F. | C. | qr lb |
| Fore Topmast Backstays, 3 rd Side, } and Strapping ————— } | 5 $\frac{1}{2}$ | 100 | | | | |
| Fore Topsail Tie, 4 Strands ——— | | | 17 | | | |
| Main Jears, 2 ————— | | | 80 | | | |
| Main and Fore Topmast Shrouds, } and Strapping ————— } | 5 | 130 | | 197 | 14 | |
| Fore Jears, & Gammoning for Boltspit | | | 130 | | | |
| Main and Fore Sheets ————— | | | 120 | | | |
| Foot Hook, Shrouds and Strapping — | 4 $\frac{1}{2}$ | | | 380 | 24 | 13 |
| Mizen Jears, Parrel Ropes, and } Pendants for Braces ————— } | 4 | | | 80 | 4 | |
| Mizen Topmast Shrouds, Backstays } and Stays ————— } | 3 $\frac{1}{2}$ | 100 | | | | |
| Fore Bowlines ————— | | | 44 | | | |
| Fore Top Tackle Fall ————— | | | 56 | | | |
| Main ditto ————— | | | 56 | | | |
| Burton Fall ————— | | | 40 | | | |
| Cat Falls ————— | | | 68 | | | |
| Topmast Stayfail, Stays and Horses } for the Main and Fore Yards — } | | | 60 | | | |
| | | | | 424 | 12 | |

*The Length and Size of the Rigging
of a Ship of 600 Tons.*

| | Size | Length | | | Weight | |
|---|------|-----------------|----|-----|--------|-------|
| | | Inch | F. | F. | C | qr lb |
| Main Top Gallant Shrouds, Back- stays and Stay | } | 3 $\frac{1}{4}$ | 80 | | | |
| Fore Braces | | | 52 | | | |
| Fore Tackle Falls | | | 72 | | | |
| Flying Jib Tye | | | 16 | | | |
| Stay | | | 18 | | | |
| Main Lifts | | | 80 | | | |
| Braces | | | 72 | | | |
| Clew-garnets | | | 50 | | | |
| Bowlines | | | 50 | | | |
| Tackle Falls | | | 72 | | | |
| Mizen Topping Lift | | | 24 | | | |
| Lashing for the Main and Fore Jeer | } | | 60 | | | |
| Blocks | | | — | 646 | 17 | |
| Fore Top Gallant Shrouds, Back- stays and Stay | } | 3 | 80 | | | |
| Fore Clew-garnets | | | 42 | | | |
| Lifts | | | 72 | | | |
| Fore Stayfail Haliards | | | 20 | | | |

*The Length and Size of the Rigging
of a Ship of 600 Tons.*

| | Size Inch | Length | | | Weight qr lb |
|--|-----------------|--------|-----|----|-----------------|
| | | F. | F. | C. | |
| Fish Tackle Falls | 3 | 30 | | | |
| Main Topfail Lifts | | 54 | | | |
| Braces | | 70 | | | |
| Clewlines | | 72 | | | |
| Bowlines | | 42 | | | |
| Main Topmast Stayfail Haliards | | 28 | | | |
| | | | 510 | 12 | |
| Fore Topfail Lifts | 2 $\frac{3}{4}$ | 50 | | | |
| Braces | | 54 | | | |
| Clewlines | | 64 | | | |
| Spritsail Braces | | 60 | | | |
| Whip Fall | | 30 | | | |
| Main Topfail Haliards | | 90 | | | |
| Mizen Brails | | 26 | | | |
| Sheet | | 24 | | | |
| Yard Tackle Falls | | 60 | | | |
| Stay Tackle Falls, Laniards for } Backstays and Mizzen Shrouds— } | | 120 | | | |
| | | | 578 | 12 | 1 |
| Fore Topfail Reef Tackle Falls | 2 $\frac{1}{2}$ | 54 | | | |
| Haliards | | 80 | | | |

*The Length and Size of the Rigging
of a Ship of 600 Tons.*

Size Length Weight

Inch F. F. C. qr lb

| | | | | | |
|---|-----------------|-----|-----|----|-----|
| pritfail Lifts | 2 $\frac{1}{2}$ | 38 | | | |
| Haliards | | 28 | | | |
| ying Jib Guys | | 60 | | | |
| ain Topmast Burton Falls | | 36 | | | |
| ain Buntlines | | 72 | | | |
| ain Topfail Buntlines | | 50 | | | |
| Reef Tackle Falls | | 60 | | | |
| izen Bowlines | | 24 | | | |
| Burton Fall | | 34 | | | |
| aff Tackle Falls | | 78 | | | |
| aniards for Topmast Shrouds, and Lashings for Tie Blocks | | 120 | | | |
| | | | 734 | 11 | 317 |
| ore Buntlines | 2 $\frac{1}{4}$ | 60 | | | |
| ore Topfail Buntlines | | 46 | | | |
| Bowlines | | 44 | | | |
| ying Jib Haliards | | 30 | | | |
| ain Leech Lines | | 80 | | | |
| ore Topmast Burton Falls | | 32 | | | |
| ain Top Gallant Haliards | | 40 | | | |

| <i>The Length and Size of the Rigging of a Ship of 600 Tons.</i> | | Length | | Weight | |
|--|-----------------|--------|-----|--------|-------|
| | Size In ch | F. | F. | C. | qr lb |
| Mizen Stayfail Haliards | 2 $\frac{1}{4}$ | 24 | | | |
| Cross-jack Braces | | 44 | | | |
| Fore Leech Lines | 2 | 86 | 400 | 5 | 2 |
| Fore Top Gallant Haliards | | 36 | | | |
| Spritfail Buntlines | | 24 | | | |
| Flying Jib Down-hawler | | 30 | | | |
| Mizen Truss Fall | | 24 | | | |
| Mizen Topfail Lifts | | 40 | | | |
| Braces | | 36 | | | |
| Clewlines | | 44 | | | |
| Haliards | | 30 | | | |
| Buntlines | | 22 | | | |
| Mizen Topmast Stayfail Haliards | | 20 | | | |
| Spritfail Bowlines | 1 $\frac{1}{2}$ | 30 | 392 | 4 | 2 9 |
| Fore Stayfail Down-hawler | | 18 | | | |
| Main Topmast Stayfail Down-hawler | | 18 | | | |
| Mizen Peek Brails | | 30 | | | |
| Fore Top Gallant Lifts | 1 $\frac{1}{2}$ | 22 | 96 | | 3 20 |

*Length and Size of the Rigging
of a Ship of 600 Tons.*

| | Size Inch. | Length | | Weight | |
|---|---------------|---------|-----|--------|-------|
| | | F. | F. | C. | qr lb |
| Main Top Gallant Lifts ——— | 1 1/2 | 24 | | | |
| Clewlines ——— | | 72 | | | |
| Stayfail Haliards ——— | | 36 | | | |
| Main Topmast Stayfail Down- hawler ——— } | | 19 | | | |
| Cross-jack Lifts ——— | | 36 | | | |
| Fore Top Gallant Braces ——— | 1 1/4 | 56 | 209 | 1 | 3 |
| Clewlines ——— | | 60 | | | |
| Main Top Gallant Braces ——— | | 60 | | | |
| Bowlines ——— | | 60 | | | |
| Stayfail Down- hawler ——— } | | 18 | | | |
| | | | 254 | 1 | 2 1/2 |
| In all ——— | | 571 1/2 | 207 | 2 1/2 | 1 1/2 |

For LANIARDS, &c.

| | | Inches | Fathoms | | C. qr. lb. |
|---|-----------|-----------------|---------|----|------------|
| 2 | Coyles of | 3 $\frac{1}{2}$ | 260 | 8 | 3 24 |
| 2 | Ditto | 3 $\frac{1}{2}$ | 260 | 7 | 3 12 |
| 4 | Ditto | 3 $\frac{1}{4}$ | 520 | 13 | 2 16 |
| 4 | Ditto | 3 | 520 | 13 | 1 12 |
| 5 | Ditto | 2 $\frac{1}{2}$ | 650 | 13 | 3 0 |
| 5 | Ditto | 2 $\frac{1}{2}$ | 650 | 10 | 2 4 |
| 5 | Ditto | 2 $\frac{1}{4}$ | 650 | 8 | 3 20 |
| 5 | Ditto | 2 | 650 | 7 | 2 16 |
| 3 | Ditto | 1 $\frac{3}{4}$ | 390 | 3 | 1 8 |
| 4 | Ditto | 1 $\frac{1}{2}$ | 520 | 5 | 0 0 |
| 3 | Ditto | 1 $\frac{1}{4}$ | 390 | 2 | 2 2 |
| 3 | Ditto | 1 | 390 | 1 | 3 14 |
| | | | | | <hr/> |
| | | | | | 97 1 10 |

STRAPPING of BLOCKS.

| | | Inches | Fathoms | | C. qr. lb. |
|---|----------|-----------------|---------|---|------------|
| 2 | Coyle of | 3 $\frac{1}{2}$ | 130 | 1 | 3 4 |
| 2 | Ditto | 3 $\frac{1}{4}$ | 130 | 1 | 2 23 |
| 2 | Ditto | 3 | 130 | 1 | 2 5 |
| 2 | Ditto | 2 $\frac{3}{4}$ | 130 | 1 | 1 14 |
| 2 | Ditto | 2 $\frac{1}{2}$ | 130 | 1 | 0 6 |
| 2 | Ditto | 2 $\frac{1}{4}$ | 130 | 0 | 3 16 |
| 2 | Ditto | 2 | 130 | 0 | 3 1 |
| 2 | Ditto | 1 $\frac{3}{4}$ | 130 | 0 | 2 14 |
| 2 | Ditto | 1 $\frac{1}{2}$ | 130 | 0 | 2 6 |
| 2 | Ditto | 1 $\frac{1}{4}$ | 130 | 0 | 1 19 |
| 2 | Ditto | 1 | 130 | 0 | 1 7 |
| | | | | | <hr/> |
| | | | | | 11 0 24 |

| | | | C. qr. lb. | | |
|---|----------------------------|---------|------------|---|-------|
| 6 | Coyle 12 Thread Ratling at | — 0 3 0 | — | 4 | 2 0 |
| 9 | Ditto | — 0 2 0 | — | 1 | 2 0 |
| 6 | Ditto | — 0 3 0 | — | 0 | 3 0 |
| | | | | | <hr/> |
| | | | | | 6 3 0 |

The Total Weight of the Cordage used in rigging a Ship of 600 Tons, is 322 Cwt. 3 qr. 17 lb. and the Weight of any other Ship's Cordage will be nearly as her Burthen.

Therefore, suppose it is required to find the Weight of the Cordage of a Ship of 1000 Tons Burthen? say, as 600 is to 323, so is 1000 to 539 Cwt. nearly.

The Weight of any Part of the Rigging may be found as above.

Explanation of the preceding Table.

The first Column contains the Size of the Rope; the second, the Length of each Article; the third, the total Length of each Size; and the fourth, fifth and sixth, the Weight in Hundred Weights, Quarters and Pounds.

| | | | | | | |
|-----|--|--|--|--|--|--|
| 1b. | | | | | | |
| 4 | | | | | | |
| 23 | | | | | | |
| 5 | | | | | | |
| 14 | | | | | | |
| 6 | | | | | | |
| 16 | | | | | | |
| 1 | | | | | | |
| 14 | | | | | | |
| 6 | | | | | | |
| 19 | | | | | | |
| 7 | | | | | | |
| 24 | | | | | | |
| 0 | | | | | | |
| 0 | | | | | | |
| 0 | | | | | | |
| 0 | | | | | | |

A LIST of His Majesty's ROYAL NAVY, 1783.

Five First Rates, 850 Men
highest, 750 lowest Number
of Men.

BRITANNIA 100 Guns
R. Sovereign 100 —
Victory ——— 100 —
Ville de Paris ——— 104 —
Umpire ——— 100 —

Eighteen Second Rates, 750
Men highest, 700 lowest
Number of Men.

Atlas ——— 90 Guns
Barfleur ——— 98 —
Blenheim ——— 90 —
Duke ——— 98 —
Formidable ——— 98 —
Prince George ——— 98 —
St. George ——— 98 —
Glory ——— 98 —
Impregnable ——— 90 —
London ——— 98 —
Namur ——— 90 —
Neptune ——— 90 —
Ocean ——— 90 —
Queen ——— 98 —
Prince ——— 90 —
Princess Royal ——— 90 —
Sandwich ——— 98 —
Union ——— 90 —

One Hundred and Forty-two
Third Rates, 650 highest,
480 lowest Number of Men

Princess Amelia ——— 80 —
Cambridge ——— 80 —
Foudroyant ——— 80 —

Gibraltar ——— 80 Guns
Royal William ——— 84 —
Ajax ——— 74 —
Albion ——— 74 —
Alcide ——— 74 —
Alexander ——— 74 —
Alfred ——— 74 —
Arrogant ——— 74 —
Bedford ——— 74 —
Berwick ——— 74 —
Bellona ——— 74 —
Bombay Castle ——— 74 —
Bellerophon ——— 74 —
Bulwark ——— 74 —
Canada ——— 74 —
Cæsar ——— 74 —
Carnatic ——— 74 —
Centaur ——— 74 —
Conqueror ——— 74 —
Collofusus ——— 74 —
Culloden ——— 74 —
Cumberland ——— 74 —
Courageux ——— 74 —
Defence ——— 74 —
Defiance ——— 74 —
Dragon ——— 74 —
Dublin ——— 74 —
Edgar ——— 74 —
Egmont ——— 74 —
Elizabeth ——— 74 —
Elephant ——— 74 —
Excellent ——— 74 —
Fame ——— 74 —
Fortitude ——— 74 —
Ganges ——— 74 —
Glorieux ——— 74 —
Goliath ——— 74 —
Grafton ——— 74 —

Grampus

Grampus ————— 74 Guns
 Hector Eng. ————— 74 ———
 Hector Fr. ————— 74 ———
 Hercules ————— 74 ———
 Hero ————— 74 ———
 Invincible ————— 74 ———
 Irrefistible ————— 74 ———
 Illustrious ————— 74 ———
 Kent ————— 74 ———
 Lenox ————— 74 ———
 Leviathan ————— 74 ———
 Majestic ————— 74 ———
 Magnificent ————— 74 ———
 Marlborough ————— 74 ———
 Monarch ————— 74 ———
 Mars ————— 74 ———
 Montague ————— 74 ———
 Powerful ————— 74 ———
 Pegase ————— 74 ———
 Princeffa ————— 74 ———
 Royal Oak ————— 74 ———
 Ramillies ————— 74 ———
 Resolution ————— 74 ———
 Robust ————— 74 ———
 Ruffel ————— 74 ———
 Saturn ————— 74 ———
 Shewsbury ————— 74 ———
 Suffolk ————— 74 ———
 Sultan ————— 74 ———
 Superb ————— 74 ———
 Temeraire ————— 74 ———
 Terrible ————— 74 ———
 Thunderer ————— 74 ———
 Tiger ————— 74 ———
 Torbay ————— 74 ———
 Tremendous ————— 74 ———
 Triumph ————— 74 ———
 Valiant ————— 74 ———
 Vanguard ————— 74 ———
 Venerable ————— 74 ———
 Victorious ————— 74 ———
 Vengeance ————— 74 ———
 Prince of Wales ————— 74 ———
 Warspite ————— 74 ———

Warrior ————— 74 Guns
 Boyne ————— 70 ———
 Burford ————— 70 ———
 Orford ————— 70 ———
 Diligente ————— 68 ———
 Monarca ————— 68 ———
 Agamemnon ————— 64 ———
 St. Albans ————— 64 ———
 St. Ann ————— 64 ———
 America ————— 64 ———
 Anfon ————— 64 ———
 Ardent ————— 64 ———
 Ardente ————— 64 ———
 Africa ————— 64 ———
 Asia ————— 64 ———
 Belliqueux ————— 64 ———
 Bell Isle ————— 64 ———
 Bienfaisant ————— 64 ———
 Crown ————— 64 ———
 Le Caton ————— 64 ———
 Dictator ————— 64 ———
 Diadem ————— 64 ———
 Dictator ————— 64 ———
 Director ————— 64 ———
 Essex ————— 64 ———
 Eagle ————— 64 ———
 Exeter ————— 64 ———
 Europe ————— 64 ———
 Le Jafon ————— 64 ———
 Inflexible ————— 64 ———
 Intrepid ————— 64 ———
 Jersey ————— 64 ———
 Indefatigable ————— 64 ———
 Lion ————— 64 ———
 Lys ————— 64 ———
 Magnanime ————— 64 ———
 Modeste ————— 64 ———
 Monmouth ————— 64 ———
 Nonfuch ————— 64 ———
 Polyphemus ————— 64 ———
 Prince William ————— 64 ———
 Prothee ————— 64 ———
 Prudent ————— 64 ———
 Raisnable ————— 64 ———

| | | |
|-----------|----|------|
| Repulse | 64 | Guns |
| Revenge | 64 | |
| Ruby | 64 | |
| Sampson | 64 | |
| Standard | 64 | |
| Sceptre | 64 | |
| Scipio | 64 | |
| Stately | 64 | |
| Trident | 64 | |
| Veteran | 64 | |
| Vigilant | 64 | |
| Worcester | 64 | |
| Yarmouth | 64 | |

Thirty three Fourth Rates
220 highest, 350 lowest
Number of Men.

| | |
|-------------------|----|
| Achilles | 60 |
| Buffalo | 60 |
| Conquestadore | 60 |
| Dreadnought | 60 |
| Dunkirk | 60 |
| Firm | 60 |
| Medway | 60 |
| Panther | 60 |
| Prince Edward | 60 |
| Rippon | 60 |
| Adamant | 50 |
| Antelope | 50 |
| Assistance | 50 |
| Bristol | 50 |
| Cato | 50 |
| Centurion | 50 |
| Chatham | 50 |
| Europa | 50 |
| Grampus | 50 |
| Ifis | 50 |
| Jupiter | 50 |
| Leander | 50 |
| Medusa | 50 |
| Preston | 50 |
| Portland | 50 |
| Princess Caroline | 50 |
| Leopard | 50 |

| | | |
|-----------|----|------|
| Renown | 50 | Guns |
| Romney | 50 | |
| Rotterdam | 50 | |
| Salisbury | 50 | |
| Trusty | 50 | |
| Warwick | 50 | |

Ninety-eight Fifth Rates,
250 highest, 220 lowest
Number of Men.

| | |
|--------------|----|
| Aetion | 44 |
| Argo | 44 |
| Artois | 44 |
| Assurance | 44 |
| Charon | 44 |
| Dolphin | 44 |
| Diomed | 44 |
| Endymion | 44 |
| Experiment | 44 |
| Gladiator | 44 |
| Guardian | 44 |
| Janus | 44 |
| Launceston | 44 |
| Mediator | 44 |
| Phoenix | 44 |
| Rainbow | 44 |
| Regulus | 44 |
| Resistance | 44 |
| Roebuck | 44 |
| Serapis | 44 |
| Ulysses | 44 |
| Arethusa | 38 |
| Latona | 38 |
| Minerva | 38 |
| Phaeton | 38 |
| La Prudente | 38 |
| Thetis | 38 |
| Belle Poule | 36 |
| Crescent | 36 |
| Flora | 36 |
| Inconstant | 36 |
| St. Leocadia | 36 |
| Monfieur | 36 |

St. Mark's

Seaman's Vade-Mecum.

19

| | | |
|---------------|----|------|
| St. Margarita | 36 | Guns |
| La Nymphe | 36 | |
| Pallas | 36 | |
| Perseverance | 36 | |
| Phoenix | 36 | |
| Romulus | 36 | |
| Thalia | 36 | |
| Venus | 36 | |
| Amphion | 32 | |
| Æolus | 32 | |
| Amazon | 32 | |
| Ambuscade | 32 | |
| Andromache | 32 | |
| Alcmene | 32 | |
| Andromeda | 32 | |
| L'Amable | 32 | |
| Apollo | 32 | |
| Alarm | 32 | |
| Active | 32 | |
| Astrea | 32 | |
| Blonde | 32 | |
| Brune | 32 | |
| Boston | 32 | |
| Castor | 32 | |
| Convert | 32 | |
| Cleopatra | 32 | |
| Cerberus | 32 | |
| Ceres | 32 | |
| Daedalus | 32 | |
| Danae | 32 | |
| Diamond | 32 | |
| Diana | 32 | |
| Dromedary | 32 | |
| Druid | 32 | |
| Emerald | 32 | |
| Fox | 32 | |
| Greyhound | 32 | |
| Hermione | 32 | |
| Heroine | 32 | |
| Jafon | 32 | |
| Iris | 32 | |
| Juno | 32 | |
| Iphigenia | 32 | |
| Licorne | 32 | |
| Lowellie | 32 | |

| | | |
|-------------|----|------|
| Mars | 32 | Guns |
| Magicienne | 32 | |
| Meleager | 32 | |
| Mermaid | 32 | |
| Niger | 32 | |
| Orpheus | 32 | |
| Oiseau | 32 | |
| Pearl | 32 | |
| Proselyte | 32 | |
| Penelope | 32 | |
| Providence | 32 | |
| Quebec | 32 | |
| Raleigh | 32 | |
| Recovery | 32 | |
| Southampton | 32 | |
| Saphire | 32 | |
| Stag | 32 | |
| Success | 32 | |
| Syren | 32 | |
| Thames | 32 | |
| Winchelsea | 32 | |

Seventy-eight Sixth Rates,
200 highest, 160 lowest
Number of Men.

| | | |
|--------------|----|--|
| Albemarle | 28 | |
| Aurora | 28 | |
| Boreas | 28 | |
| Brilliant | 28 | |
| Carysfort | 28 | |
| Charles Town | 28 | |
| Coventry | 28 | |
| Cyclops | 28 | |
| Delaware | 28 | |
| Enterprise | 28 | |
| Grana | 28 | |
| Hussar | 28 | |
| Lizard | 28 | |
| Medea | 28 | |
| Maidstone | 28 | |
| Milford | 28 | |
| Murcury | 28 | |
| Nemesis | 28 | |
| Nettor | 28 | |

| | | |
|--------------|----|------|
| Neckar | 28 | Guns |
| Proserpine | 28 | |
| Pomona | 28 | |
| Pegasus | 28 | |
| Proserpine | 28 | |
| Resource | 28 | |
| Sibyl | 28 | |
| St. Eustatia | 28 | |
| Surprise | 28 | |
| Tartar | 28 | |
| Triton | 28 | |
| Virginia | 28 | |
| Vestal | 28 | |
| Greenwich | 26 | |
| Lioness | 26 | |
| Perseus | 26 | |
| Amphitrite | 24 | |
| Bellifarius | 24 | |
| Carolina | 24 | |
| Camel | 24 | |
| Champion | 24 | |
| Crocodile | 24 | |
| Eurydice | 24 | |
| Galatea | 24 | |
| Garland | 24 | |
| Hyæna | 24 | |
| Hind | 24 | |
| Hydra | 24 | |
| Lively | 24 | |
| Pelican | 24 | |
| Porcupine | 24 | |
| Pandora | 24 | |
| Seahorse | 24 | |
| Alfred | 20 | |
| Ariadne | 20 | |
| Camilla | 20 | |
| Cygnets | 20 | |
| Deal Castle | 20 | |
| Daphne | 20 | |
| Greenwich | 20 | |
| Heart of Oak | 20 | |
| Leith | 20 | |
| Lord Amherst | 24 | |
| Myrmidon | 22 | |

| | | |
|-----------------|----|------|
| Mackworth | 20 | Guns |
| Merchant | 20 | |
| Narcissus | 20 | |
| Nabob | 20 | |
| Perseus | 20 | |
| Pacific | 20 | |
| Prince of Wales | 20 | |
| Scarborough | 20 | |
| Squirrel | 20 | |
| Seaford | 20 | |
| Sphinx | 20 | |
| Three Brothers | 20 | |
| Unicorn | 20 | |
| William | 20 | |
| York | 20 | |

S L O O P S.

| | | |
|-----------------|----|--|
| Ariel | 16 | |
| Albacore | 16 | |
| Atalanta | 16 | |
| Beaver | 16 | |
| Bustler | 16 | |
| Brisk | 16 | |
| Cormorant | 16 | |
| Cameleon | 16 | |
| Chaser | 18 | |
| Cygnets | 18 | |
| Cormorant | 16 | |
| Calypso | 16 | |
| Duc d'Estillac | 16 | |
| Duc de Chartres | 16 | |
| Echo | 16 | |
| Fairy | 16 | |
| Fortune | 16 | |
| Florida | 16 | |
| Favorite | 16 | |
| Fly | 16 | |
| Fury | 16 | |
| Germain | 16 | |
| Hornet | 16 | |
| Hound | 16 | |
| Hinchinbrook | 16 | |
| Jamaica | 16 | |

Inspector

| | | |
|-------------|----|------|
| Inspector | 16 | Guns |
| Lynx | 16 | |
| Lark | 16 | |
| Mentor | 16 | |
| Nautilus | 16 | |
| Otter | 16 | |
| Ostrich | 16 | |
| Orestes | 18 | |
| Porcupine | 16 | |
| Pylades | 18 | |
| Pelican | 16 | |
| Reynard | 18 | |
| Raven | 18 | |
| Rhinoceros | 16 | |
| Racehorse | 16 | |
| Ratler | 16 | |
| Savage | 16 | |
| Surprize | 16 | |
| Swift | 16 | |
| Shark | 16 | |
| Scourge | 16 | |
| Swallow | 16 | |
| St. Philip | 16 | |
| Speedwell | 16 | |
| Termagant | 18 | |
| Trimmer | 16 | |
| Zebra | 16 | |
| Albany | 14 | |
| Avenger | 14 | |
| Allegiance | 14 | |
| Alert | 14 | |
| Badger | 14 | |
| Beaumont | 14 | |
| Bonetta | 14 | |
| Bulldog | 14 | |
| Childers | 14 | |
| Cabot | 14 | |
| Drake | 14 | |
| Flying Fish | 14 | |
| Flirt | 14 | |
| Helena | 14 | |
| Kite | 14 | |
| Lively | 14 | |
| Lisburn | 14 | |

| | | |
|--------------|----|------|
| Martin | 14 | Guns |
| Nymph | 14 | |
| North | 14 | |
| Otter | 14 | |
| Pacahunta | 14 | |
| Pigmy | 14 | |
| Polecat | 14 | |
| Pelican | 14 | |
| Racoon | 14 | |
| Ranger | 14 | |
| Recovery | 14 | |
| Star | 14 | |
| Shark | 14 | |
| Sprightly | 14 | |
| Stork | 14 | |
| Scout | 14 | |
| St. Vincent | 14 | |
| Speedy | 14 | |
| Snake | 14 | |
| Thorn | 14 | |
| Tobago | 14 | |
| Tickler | 15 | |
| Victor | 14 | |
| Vultur | 14 | |
| Vaughan | 14 | |
| Zephyr | 14 | |
| Alderney | 12 | |
| Hawk | 12 | |
| Resolution | 12 | |
| Canceaux | 10 | |
| Hunter | 10 | |
| Hazard | 10 | |
| Hope | 10 | |
| Independence | 10 | |
| Ranger | 8 | |
| Wasp | 8 | |
| Wolf | 8 | |

CUTTERS.

| | | |
|------------|----|--|
| Liberty | 16 | |
| Advice | 14 | |
| Tapeguar | 14 | |
| Trespassey | | |

| | | |
|-------------|----|------|
| Trespassley | 14 | Guns |
| Brazen | 14 | |
| Betsy | 14 | |
| Buffy | 14 | |
| Cruiser | 14 | |
| Cockatrice | 14 | |
| Dragon | 12 | |
| Expedition | 12 | |
| Flying Fish | 12 | |
| Griffin | 12 | |
| Hope | 12 | |
| Jackall | 12 | |
| Pheasant | 12 | |
| Ramble | 12 | |
| Resolution | 12 | |
| Wells | 8 | |
| Amelia | 8 | |
| Augustus | 8 | |
| Dorset | 8 | |
| Fortune | 8 | |
| Union | 8 | |

SCHOONERS.

| | | |
|-----------|----|--|
| Argo | 14 | |
| Coureur | 10 | |
| Endeavour | 10 | |
| Racehorse | 10 | |
| Sprightly | 10 | |
| Viper | 10 | |

Brigs. Gun

| | | |
|------------|----|--|
| Active | 14 | |
| Antigua | 14 | |
| Defiance | 14 | |
| Endeavour | 10 | |
| Expedition | 14 | |
| Falcon | 14 | |
| Pelican | 14 | |
| Placentia | 14 | |

| | | |
|---------------|----|------|
| Port Antonio | 10 | Guns |
| Prince Edward | 14 | |

FIRE-SHIPS.

| | Guns |
|------------|------|
| Alecto | 12 |
| Blast | 8 |
| Basilisk | 8 |
| Combustion | 8 |
| Comet | 8 |
| Explosion | 8 |
| Firebrand | 8 |
| Furnace | 8 |
| Harpy | 8 |
| Incendiary | 8 |
| Infernal | 8 |
| Lightning | 8 |
| Megaera | 8 |
| Pluto | 8 |
| Salamander | 8 |
| Sulphur | 8 |
| Spitfire | 8 |
| Strombolo | 8 |
| Tisiphone | 12 |
| Volcano | 8 |

BOMBS.

| | | |
|----------|---|--|
| Ætna | 8 | |
| Carcafs | 8 | |
| Terror | 8 | |
| Thunder | 8 | |
| Vesuvius | 8 | |

Five large YACHTS.

| | G. Sw. |
|------------------|--------|
| Catherine | 6 — 8 |
| Dorset | 0 — 14 |
| Fubbs | 8 — 14 |
| Mary | 0 — 10 |
| William and Mary | |

Five

Five small YACHTS.

| | |
|------------|--------|
| Bolton | 6 Guns |
| Chatham | 6 |
| Medina | 6 |
| Portsmouth | 6 |
| Plymouth | 6 |

ABSTRACT.

| | |
|-------------|-----|
| First Rates | 5 |
| Second | 18 |
| Third | 142 |
| Fourth | 33 |
| Fifth | 98 |

296

Bro. over 296

| | |
|--------------|-----|
| Sixth | 78 |
| Sloops | 104 |
| Bombs | 5 |
| Fire Ships | 20 |
| Brigs | 10 |
| Schooners | 6 |
| Cutters | 24 |
| Yachts large | 9 |
| Yachts small | 5 |

In all 553

Besides Hoys, Transports,
and Hulks.



A N
ESTABLISHMENT
O F
S E A - W A G E S,
AND OF THE
Number of OFFICERS allowed in
His MAJESTY'S SHIPS.

Per Diem

| | <i>l.</i> | <i>s.</i> | <i>d.</i> |
|---|-----------|-----------|-----------|
| 1. THE Pay of the Admiral and Commander in Chief of the Fleet, is — | 5 | 0 | 0 |
| Of an Admiral ————— | 3 | 10 | 0 |
| Of a Vice-Admiral ————— | 2 | 10 | 0 |
| Of a Rear-Admiral ————— | 1 | 15 | 0 |

2. The first Captain to the Admiral and Commander in Chief of the Fleet shall have the Pay of a Rear-Admiral. The second Captain to the said Admiral, and the Captains to other Admirals, shall be allowed the Pay of Captain of a first Rate.

The

3. The Captains to Vice-Admirals shall be allowed the Pay of a Second Rate, and the Captains to Rear-Admirals the Pay of a Third Rate. But if a Vice or Rear-Admiral serves in a Ship of the First or Second Rate, the Captain shall have the proper Pay of the Ship.

4. Flag Officers are to give Certificates to their Captains of the Number of Days they have served under them, that they may be paid accordingly.

5. Pay of the Secretaries or Clerks of Flag-Officers, for themselves, under Clerks, the Physicians, &c.

| | | £. | s. | d. |
|---|---|-----|----|----|
| To the Secretary of | The Admiral of the Fleet <i>per Annum</i> | 300 | 0 | 0 |
| | The Admiral of the White or Blue commanding in Chief ———— | 200 | 0 | 0 |
| | A Vice or Rear-Admiral commanding in Chief ———— | 150 | 0 | 0 |
| | A Commander in Chief with a Captain under him ———— | 100 | 0 | 0 |
| To the Clerks of | The Admirals of the White and Blue, not having the chief Command ———— | 100 | 0 | 0 |
| | Vice and Rear Admiral ———— | 50 | 0 | 0 |
| To the Physician, when any, <i>per Day</i> ———— | | 1 | 0 | 0 |
| To the Deputy-Treasurer, when any, ———— | | 0 | 6 | 8 |
| To a Deputy Judge-Advocate, when Court-Martial requires his Assistance <i>per Day</i> , during the Time the Court subsists ———— | | 0 | 8 | 0 |
| To a Provost-Martial in the like Case ———— | | 0 | 4 | 0 |
| To a School-Master, the Pay of a Midshipman, according to the Rate, and <i>per Year</i> } | | 20 | 0 | 0 |

6. The Wages of other Officers, and of Seamen, with the Number of Officers allowed to a Ship of each Rate, is settled as follows:

D

Officer

A TABLE of the Officers, Tit'es, Number, and Wages in each Rate, according to the present Establishment, per Month of 28 Days.

| O F F I C E R S. | No | 1st Rate | No | 2d Rate | No | 3d Rate | No | 4th Rate | No | 5th Rate | No | 6th Rate |
|--|----|----------|----|----------|----|----------|----|----------|----|----------|----|----------|
| | | l. s. d. | | l. s. d. | | l. s. d. | | l. s. d. | | l. s. d. | | l. s. d. |
| Captains | 1 | 28 0 0 | 1 | 22 8 0 | 1 | 18 18 0 | 1 | 14 0 0 | 1 | 11 4 0 | 1 | 8 8 0 |
| Lieutenants | 6 | 7 0 0 | 6 | 7 0 0 | 4 | 5 12 0 | 3 | 5 12 0 | 3 | 5 12 0 | 1 | 5 12 0 |
| Master | 1 | 9 3 0 | 1 | 8 8 0 | 1 | 6 6 0 | 1 | 5 12 0 | 1 | 5 2 8 | 1 | 4 0 0 |
| 2d D ^o and Pilot of the Yatches | 0 | 3 10 0 | 0 | 0 0 0 | 0 | 0 0 0 | 0 | 0 0 0 | 0 | 0 0 0 | 0 | 0 0 0 |
| Masters Mates | 6 | 3 6 0 | 4 | 3 0 0 | 3 | 2 16 2 | 2 | 2 7 10 | 2 | 2 2 0 | 2 | 2 2 0 |
| Midshipmen | 24 | 2 5 0 | 24 | 2 0 0 | 16 | 1 17 6 | 10 | 1 13 9 | 6 | 1 10 0 | 4 | 1 10 0 |
| Schoolmasters | 0 | 0 0 0 | 0 | 0 0 0 | 1 | 1 17 6 | 1 | 1 13 9 | 1 | 1 10 0 | 0 | 0 0 0 |
| Captains Clerks | 1 | 3 5 0 | 1 | 2 0 0 | 1 | 1 17 6 | 1 | 1 13 9 | 1 | 1 10 0 | 1 | 1 10 0 |
| Quarter Master | 8 | 1 15 0 | 8 | 1 15 0 | 6 | 1 12 0 | 4 | 1 10 0 | 3 | 1 8 0 | 2 | 1 6 0 |
| Quarter Masters Mates | 6 | 1 10 0 | 6 | 1 10 0 | 4 | 1 8 0 | 4 | 1 8 0 | 3 | 1 6 0 | 2 | 1 5 0 |
| Boatswains | 1 | 4 0 0 | 1 | 3 10 0 | 1 | 3 0 0 | 1 | 2 10 0 | 1 | 2 5 0 | 1 | 2 0 0 |
| Boatswains Mates | 4 | 1 15 0 | 4 | 1 15 0 | 2 | 1 12 0 | 2 | 1 10 0 | 1 | 1 8 0 | 1 | 1 6 0 |
| Yeomen of the Sheets | 4 | 1 12 0 | 4 | 1 10 0 | 4 | 1 8 0 | 6 | 1 8 0 | 2 | 1 6 0 | 1 | 1 6 0 |
| Cockswains | 1 | 1 12 0 | 1 | 1 10 0 | 1 | 1 8 0 | 1 | 1 8 0 | 1 | 1 6 0 | 1 | 1 6 0 |
| Master Sailmaker's | 1 | 1 15 0 | 1 | 1 15 0 | 1 | 1 15 0 | 1 | 1 14 0 | 1 | 1 12 0 | 1 | 1 12 0 |
| Sailmakers Mates | 1 | 1 8 0 | 1 | 1 8 0 | 1 | 1 8 0 | 1 | 1 8 0 | 1 | 1 8 0 | 1 | 1 8 0 |
| Sailmakers Crew | 2 | 1 5 0 | 2 | 1 5 0 | 2 | 1 5 0 | 2 | 1 5 0 | 1 | 1 5 0 | 1 | 1 5 0 |

Gunner's

| O F F I C E R S | No | 1st Rate | No | 2d Rate | No | 3d Rate | No | 4th Rate | No | 5th Rate | No | 6th Rate |
|-----------------|----|----------|----|---------|----|---------|----|----------|----|----------|----|----------|
|-----------------|----|----------|----|---------|----|---------|----|----------|----|----------|----|----------|

The Seaman's Vade-Mecum.

| OFFICERS | | No | 1st Rate | No | 2d Rate | No | 3d Rate | No | 4th Rate | No | 5th Rate | No | 6th Rate |
|------------------------------|---|----|----------|----|----------|----|----------|----|----------|----|----------|----|----------|
| | | | l. s. d. | | l. s. d. | | l. s. d. | | l. s. d. | | l. s. d. | | l. s. d. |
| Gunners | — | 1 | 4 0 0 | 1 | 3 10 0 | 1 | 3 0 0 | 1 | 2 10 0 | 1 | 2 5 0 | 1 | 1 2 0 0 |
| Gunners Mates | — | 4 | 1 15 0 | 4 | 1 15 0 | 2 | 1 12 0 | 1 | 1 10 0 | 1 | 1 8 0 | 1 | 1 6 0 |
| Yeomen of the Powder Room | — | 2 | 1 15 0 | 2 | 1 15 0 | 2 | 1 12 0 | 1 | 1 10 0 | 1 | 1 8 0 | 1 | 1 6 0 |
| Quarter Gunner 1 to 4 Guns | — | 0 | 1 6 0 | 0 | 1 6 0 | 0 | 1 5 0 | 0 | 1 5 0 | 0 | 1 5 0 | 0 | 1 5 0 |
| Armourers | — | 1 | 1 5 0 | 1 | 1 5 0 | 1 | 1 5 0 | 1 | 1 5 0 | 1 | 1 5 0 | 1 | 1 5 0 |
| Gunsmiths | — | 1 | 1 5 0 | 1 | 1 5 0 | 0 | 0 0 0 | 0 | 0 0 0 | 0 | 0 0 0 | 0 | 0 0 0 |
| Carpenters | — | 1 | 4 0 0 | 1 | 3 10 0 | 1 | 3 0 0 | 1 | 2 10 0 | 1 | 2 5 0 | 1 | 2 0 0 |
| Carpenters Mates | — | 2 | 2 0 0 | 2 | 2 0 0 | 1 | 1 16 0 | 1 | 1 14 0 | 1 | 1 12 0 | 1 | 1 10 0 |
| Carpenters Crew | — | 12 | 1 6 0 | 10 | 1 6 0 | 8 | 1 5 0 | 6 | 1 5 0 | 5 | 1 5 0 | 4 | 1 5 0 |
| Purfers | — | 1 | 4 0 0 | 1 | 3 10 0 | 1 | 3 0 0 | 1 | 2 10 0 | 1 | 2 5 0 | 1 | 2 0 0 |
| Stewards | — | 1 | 1 5 8 | 1 | 1 5 0 | 1 | 1 5 0 | 1 | 1 3 4 | 1 | 1 0 8 | 1 | 1 0 0 |
| Stewards Mates | — | 1 | 1 0 8 | 1 | 1 0 8 | 1 | 1 0 8 | 1 | 1 0 8 | 0 | 0 0 0 | 0 | 0 0 0 |
| Cook | — | 1 | 1 5 0 | 1 | 1 5 0 | 1 | 1 5 0 | 1 | 1 5 0 | 1 | 1 5 0 | 1 | 1 4 0 |
| Surgeons | — | 1 | 5 0 0 | 1 | 5 0 0 | 1 | 5 0 0 | 1 | 5 0 0 | 1 | 5 0 0 | 1 | 5 0 0 |
| Surgeons first Mates | — | 5 | 2 10 0 | 4 | 2 10 0 | 3 | 2 10 0 | 3 | 2 10 0 | 2 | 2 10 0 | 1 | 2 10 0 |
| Ditto second Mates | — | 5 | 2 0 0 | 4 | 2 0 0 | 2 | 2 0 0 | 3 | 2 0 0 | 2 | 2 0 0 | 0 | 0 0 0 |
| Ditto 3d, 4th, and 5th Mates | — | 5 | 1 10 0 | 4 | 1 10 0 | 3 | 1 10 0 | 3 | 0 0 0 | 0 | 0 0 0 | 0 | 0 0 0 |
| Master at Arms | — | 1 | 2 5 0 | 1 | 2 0 0 | 1 | 1 17 0 | 1 | 1 13 0 | 1 | 1 10 0 | 1 | 1 10 0 |
| Corporals | — | 2 | 1 15 0 | 2 | 1 12 0 | 2 | 1 10 0 | 2 | 1 10 9 | 2 | 1 8 0 | 1 | 1 6 0 |
| Trumpeters | — | 1 | 1 10 0 | 1 | 1 8 0 | 1 | 1 5 0 | 1 | 1 5 0 | 1 | 1 5 0 | 1 | 1 4 0 |

| Fire-Ships. at 5th Rates Pay. | | Hospital Ships at 5th Rates Pay. | Store-Ships at 5th Rates Pay. | Sloops, of 100 to 60 Men, at 6th Rates. Pay. | Bomb Vef- sels and Sloops of 50 to 40 Men, ditto | Yachts of 50 Men. ditto Pay. | Yachts of 40 to 30 Men, ditto |
|----------------------------------|--------------------------|--|-------------------------------------|--|--|------------------------------------|-------------------------------------|
| N ^o Officers. | | N ^o Officers. | N ^o Officers. | | | | |
| 1 | Captain | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | Lieutenant | 0 | 1 | 1 | 0 | 0 | 0 |
| 1 | Master | 1 | 1 | 0 | 0 | 0 | 0 |
| 1 | Master's Mate | 1 | 1 | 1 | 1 | 0 | 0 |
| 2 | Midshipmen | 2 | 2 | 2 | 1 | 1 | 1 |
| 1 | Captain's Clerk | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | Quarter-Masters | 2 | 2 | 2 | 1 | 1 | 1 |
| 1 | Quarter Master's Mate | 1 | 1 | 1 | 0 | 1 | 0 |
| 1 | Boatwain | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | Boatwain's Mate | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | Cockswain | 1 | 1 | 1 | 0 | 0 | 0 |
| 1 | Master Sailmaker | 1 | 1 | 1 | 1 | 0 | 0 |
| 1 | Sailmaker's Crew | 1 | 1 | 1 | 0 | 0 | 0 |
| 1 | Gunner | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | Gunner's Mate | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | Yeoman of the Powd. Room | 1 | 1 | 1 | 0 | 1 | 0 |
| | Quarter Gunners | 0 | 1 | 1 | 0 | 1 | 0 |

Fire

Hospital Store Ships Sloops of Bomb Vef-
Vatches of Vatches of
Vatches of Vatches of

The Seaman's Vade-Mecum.

29

| Fire Ships. at 5th Rates Pay. | Hospital Ships at 5th Rates Pay. | Store Ships at 5th Rates Pay. | Sloops of 100 to 60 Men, at 6th Rates Pay. | Bomb Vef. fels and Sloops of 50 to 40 Men, ditto | Yatchs of 50 Men ditto Pay. | Yatchs of 40 to 30 Men ditto |
|----------------------------------|--|-------------------------------------|--|--|-----------------------------------|------------------------------------|
| N ^o Officers. | N ^o Officers. | N ^o Officers. | | | | |
| 1 Armourer | 1 | 1 | 1 | 1 | 0 | 0 |
| 1 Carpenter | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 Carpenter's Mate | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 Carpenter's Crew | 1 | 2 | 2 | 1 | 0 | 0 |
| 1 Steward | 1 | 1 | 1 | 1 | 0 | 0 |
| 1 Cook | 1 | 1 | 1 | 0 | 0 | 0 |
| 1 Surgeon | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 Surgeons second Mates | 4 | 1 | 1 | 0 | 0 | 0 |
| 1 Corporal | 0 | 1 | 1 | 0 | 0 | 0 |

The following Company are allowed, at 11. 4s. 6d.
per Month each, viz.

Midshipman Ordinary
Cook's Mate
Cockswain's Mate
Yeoman of Boat-
swain's Room

Swabber
Cooper
Able Seamen
Captain's Cook
Ordinary Trumpeter

D 3

The following Company are allowed,
at 19s. per Month each, viz.

Chaplain
Ordinary Seamen
Shifter
Barber
Gunner's Taylor

7 Fig.

7. Flag-Officers are to commence Pay from the Date of their Commissions, or Orders to repair to their Squadrons, and continue in Pay to the Day that they strike their Flag by Order, or that it is signified to them, the Expedition is ended.

8. Captains and Lieutenants are to commence Pay from the Date of their Commissions, unless they are appointed in the Place of an Officer removed, who is to enjoy his Pay, until he is relieved by his Successor.

9. A Lieutenant succeeding to the Command of the Ship, upon the Death of the Captain in Foreign Parts, is to receive the Pay and Allowances of the Captain, until he is superceded by another Captain appointed to command her.

10. All Commissions to Captains and Lieutenants are to be entered in the Navy-Office.

11. Commission or Warrant-Officers quitting their Employments Abroad, without such Reasons as shall be satisfactory to the Lord High-Admiral, or Lords Commissioners of the Admiralty, will be dismissed from the Service.

Of the Number of Men, or Servants allowed to Officers.

1. **W**HEN the Lord High-Admiral goes to Sea in Person, there is allowed him such a Number of Men, or Servants, above the Complement of the Ship, as he thinks proper, in regard to the Dignity of his Office.

| | <i>Men</i> |
|---|------------|
| 2. The Admiral and Commander in Chief of the Fleet is allowed _____ | 50 |
| Admirals _____ | 30 |
| Vice-Admirals _____ | 20 |
| Rear-Admirals _____ | 15 |

3. Out

3. Out of which Number there may be borne on the Ship's Books as Servants, viz.

| | Servants. |
|---|-----------|
| To the Admiral and Commander in Chief of the Fleet _____ } 16 | |
| To the Admirals _____ | 12 |
| To Vice and Rear-Admirals _____ | 10 |

4. There is allowed to the Captain of every Ship four Servants in every Hundred Men of the Complement. To a Lieutenant, Master, Second Master, Purser, Surgeon, Chaplain, and Cook, in all Ships down to 60 Men inclusive, each one Servant. And to the Boatswain, Gunner, and Carpenter, in all Ships down to 100 Men inclusive, each two Servants.

5. The Allowances of Men or Servants to Flag-Officers are to be reckoned over and above the Complement of the Ship; but the Servants of Captains, and all other Officers, are to be included in it.

6. No Servants are allowed to any Officers of the Ship's Books, who is under thirteen Years of Age, unless he be the Son of the Officer, and he not to be under eleven.

7. No Servants are allowed to such Warrant-Officers, who, by the Constitution of the Navy, are standing in the Ship, and are allowed Servants in Ordinary, but who are bound to them by Indenture for at least five Years, the said Indenture to be enrolled in the Navy-Office.

8. All Officers are directed to conform themselves to these Regulations; and not by Misfratings, or collusive Powers, to receive the Wages of any more than their proper Servants.

OF TABLE MONEY.

1. THE Admiral and Commander in Chief of the Fleet is allowed twenty Shillings a Day for his Table, both in Home and Foreign Voyages.

2. Admiral's

2. Admirals, and Vice-Admirals, are allowed the same Table-Money, when they Command in Chief.

3. The Allowance of Table-Money to the Admiral and Commander in Chief of the Fleet doth begin and end with the Sea-Pay; and on the others, from the Date of their Commission or Orders to Command in Chief, to the Day of the Expiration of that Command.

Of the Lord High-Admiral.

THE Lord High-Admiral of *England*, is one of the great Officers of the Crown, and is entrusted with the Management of all *Maritime Affairs*, as well in respect of Jurisdiction as Protection. He is that high Officer to whom is committed the Government of the *Royal Navy*, with Power of Decision in all *Cases Maritime*, as well Civil as Criminal; of all Transactions upon or beyond the Sea, in any Part of the World; all Things done upon the Sea-Coast, in all Ports or Havens, and upon all Rivers below the first Bridge next towards the Sea. He hath a Power to commissionate all Officers for the Sea Service, and to grant Letters of Marque to Privateers, in Order to make Keprizals upon the Subjects of any Prince or State, against whom War is declared. To whom appertain all Penalties and Amercements of Transgressors at Sea, on the Sea Shore, and in Ports from the first Bridge on Rivers towards the Sea; also the Goods of Pirates, Felons, or Capital Faulters, Condemned or Outlawed, and all Waifs, stray Goods and Wrecks of the Sea, whether *Ligan*, *Flotam*, or *Jetsam*; that is, Goods lying in the Sea on Ground, Goods floating on the Sea, and Goods cast out by the Sea on the Shore, provided they do not appertain to the Lord of the Manor

For the transacting of all *Maritime Affairs*, this Lord High Admiral hath Courts of his own, whereof that at *London* is the Principal. In this Court, called the *Court of Admiralty*, all Proceedings are carried on, and determined by the Civil Law, because the Sea is without the Limits of the Common Law: And for the due and regular Administration of Justice in this Court, as also for the good Government and Regulation of the *Royal Navy* in general; he hath under him a great Number of Officers of different Qualities and Degrees; some at Sea, others at Land; some of a Military, others of a Civil Capacity; some Judicial, others Ministerial: So that the Dominion and Jurisdiction of the Sea, may justly be stiled another *Common-wealth*, or *Kingdom* apart; and the *Lord High-Admiral of Great-Britain* may fitly be stiled, or at least reputed, as a *Vice-Roy of the Maritime Kingdom of Great-Britain*.

Between the Common Law of *England*, and the Admiralty, there seems to be a *Divisum Imperium*, for in the Sea, so far as the Low-water Mark is observed, that is counted *Infra Corpus Comitatus adjacentis*, and Causes thence arising, are determinable by the Common Laws; yet when the Sea is full, the *Admiral* hath Jurisdiction there also (so long as the Sea flows) over Matters done between the Low-water Mark and the Land.

Under this Court there is also a Court of *Equity*, for determining Difference in Mercantile Affairs.

This *High Office* is of so great Trust and Advantage, that it is seldom granted to any single Person, unless to some Prince of the Blood; or to some prime Nobleman, in Consideration of his eminent Services; therefore it is generally executed by Commissioners appointed by the *Crown*, for the most Part consisting of seven in Number, under the Title of *Lords Commissioners* for executing the Office of *Lord High-Admiral of Great-Britain*; in the Appointment of whom the greatest Care

Care is taken to constitute Persons of known Integrity, and sufficient Ability to discharge this grand Office, from whence is derived (under His most GRACIOUS MAJESTY) the great Spring that moves the whole Machinery of *Royal Navigation*, which is the Bulwark and Safeguard of the *British* Subjects at Home, and the Envy and Terror of their Enemies Abroad.

Of Rank and Command.

1. **T**HE established Number of Flag-Officers of the Navy, is as follows: *viz.* one Admiral and Commander in Chief of the Fleet; one Admiral of the *White* and one Admiral of the *Blue*; one Vice-Admiral of the *Red*, one of the *White*, and one of the *Blue*; one Rear-Admiral of the *Red*, one of the *White*, and one of the *Blue*. And no Brevet Commissions are allowed.

2. Admirals, Vice and Rear-Admirals, Captains and Lieutenants, are to rank in their respective Classes, according to the Seniority of their Commissions.

3. When there is a sufficient Number of Flag-Officers together, all Councils of War are to be held by them only. The first Captain to the Admiral of the Fleet is on such Occasions to be esteemed as a Rear-Admiral, and take Place at all Councils of War, and also at Courts-Martial, next to the junior Rear-Admiral.

4. But if the Number of Flag-Officer be less than three, the Commander in Chief shall call to Councils of War such of the Senior Captains as he shall in his Discretion think necessary, of whom his own Captain is to be one.

5. None are to take the Rank of Captains, who have not commanded a Ship of twenty Guns or more in his Majesty's Service.

6. Commanders of Fire-ships, Sloops, Yachts, Bomb-Vessels, Hospitals, Store-ships and other Vessels, though they

they may have commanded Ships of Post before, are to be commanded by junior Captains in Ships of Post, while they keep Company together, either in Port, or at Sea; but without Prejudice to their Seniority afterwards.

7. When any Flag-Officer, or Captain, shall meet at Sea, or in Foreign Parts, with a Superior or Senior Officer, he is to acquaint him with the Orders he is under; and if such Officer shall take upon him to give him other Orders for His Majesty's Service, he must obey them.

8. No Superior or Senior Officer may detain a Junior, or give him any Delay, or divert him from pursuing his Instructions, unless it should be absolutely necessary for His Majesty's Service; and in such Case he shall send, by the first Opportunity, a Copy of the Orders he has given him, with his Reasons for so doing, to the Secretary of the Admiralty.

9. In the Absence of the Captain of any of His Majesty's Ships, the eldest Lieutenant shall have Charge of the Ship, and be answerable for the Duty of the Captain. If there be no Lieutenant, the Master shall command, after him the Second Master; but if by Loss in Battle, or other Accident, all these Officers shall be wanting, the Command shall devolve in Succession, upon the Boatswain, Gunner, Carpenter.

Of the Flag-Officers.

1. **T**HE Flag-Officer, or Commander in Chief, is to inform the Secretary of the Admiralty of all his Proceedings which relate to the Service, for the Information of the Lord High-Admiral, or Lords Commissioners of the Admiralty.

2. He is likewise to correspond with the several Public Offices, about such Matters as relate to them, and to send

send an Account to them, as well as to the Admiralty, of all Directions given by him which concern the said Offices.

3. He is never to give Orders to any Captain to bear Supernumeraries, unless there be good Cause for it, which is to be expressed in the Body of the Order; and he is to inform the Secretary of the Admiralty when he gives such Orders, and of his Reasons for so doing.

4. When he is at Sea, he is frequently to exercise the Ships under his Command, and draw them into Lines of Battle, when the Weather is fair, and the same can be done without Interruption to the Voyage.

5. He is to visit the Ships of his Squadron or Division, and view the Men on Board, and see them mustered, as often as he shall think necessary.

6. When he is in Foreign Parts, where Naval or other Officers are established, he is to conform himself, as much as possible, to the standing Rules of the Navy, in such Directions as he shall have Occasion to give them; and never to put them upon any extraordinary Expences, unless the Service should absolutely require the same.

7. He is never to interest himself in the Purchase of any Stores or Provisions in Foreign Parts, where there are proper Officers appointed for that Service; except there shall be an absolute Necessity to make Use of his Credit or Authority, to procure such Provisions or Stores as are wanted; but in that Case he shall not be so concerned, as to have any private Interest in the same.

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OF COURTS MARTIAL.

1. **A**LL Courts Martial are to be held, Offences tried, Sentences pronounced, and Execution of such Sentences done, according to the Articles and Orders contained in an Act of Parliament, made in the Thirteenth Year of the Reign of King *Charles II.* Entitled, *An Act for the Establishing Articles and Orders for the Regulating and better Government of His Majesty's Navy, Ships of War, and Forces by Sea*; but since new modelled and altered, after the Peace of *Aix la Chapelle*, to remedy some Defects which were of fatal Consequence in conducting the preceding War. See Statutes 22 *Geo. II.* cap. 23.

2. All General Powers for holding *Court-Martial*, are in Force only during the Voyage.

3. The said Court to be assembled in the Forenoon, and in the most publick Place of the Ship, where all, who will, may be present; and the Captains of all His Majesty's Ships in Company (which take post) have a Right to assist there.

4. All Complaints are to be made in Writing to the Commander in Chief (unless where he shall see Cause of himself to assemble the same) in which are to be set forth the Facts, Time, Place, and the Manner how they were committed. And if any Captain (entitled by his Rank to sit in the Court) be personally concerned in the Matter to be tried, he is not admitted to sit at the said Trial.

5. The Judge Advocate is to examine Witnesses upon Oath (and by Order of the Commander in Chief) to send an attested Copy of the Charge, to the Party accused.

6. Every Matter in this Court is to be determined by a Majority of Voices; the youngest Officer to vote first, and to proceed up to the President.

OF CEREMONY and RESPECT.

1. **A**LL Flag-Officers are to be received on board His Majesty's Ships, with a Guard under Arms, and a Beat of Drum, according to the following Method, viz.

E

2. For

2. For the Admiral, or Flag-Officer commanding in Chief, a March. For an Admiral, three Ruffles. For a Vice-Admiral, two. For a Rear-Admiral, one.

3. When any of the foregoing Officers pass by any of His Majesty's Ships, with their Flags at the Head of their Boats, the like Ceremony is to be observed respectively by the Ships which they pass by.

4. The first Captain to the Admiral, and Commander in Chief of the Fleet or Squadron, is to be received on Board by a Guard, without Beat of Drum.

Of COLOURS.

1. **O**FFICERS are forbidden to wear any other Flag or Pendent, but what belongs to their proper Rank, except when his Majesty, or any of the Royal Family are on Board.

2. If an Officer, wearing a Flag or broad Pendent, be slain in Battle, the Flag or Pendent shall not be taken in whilst the Enemy is in Sight; but Notice shall be given by Signal or otherwise, to the Admiral who commands in Chief, and also to the Flag-Officer of the Squadron he belonged to; and when the next Commanding-Officer repairs on Board he shall leave his own Flag or broad Pendent flying in his own Ship.

3. The Admiral of the Fleet, Admiral of the White and Blue, and Vice-Admiral of the Red, may carry their proper Flags at the Head of their Boats; but there must be a white Ball in the Flag of the Rear-Admiral of the Red: A blue Ball for the Vice of the White: And two blue Balls for the Rear of the White: A white Ball for the Vice of the Blue: And two white Balls for the Rear of the Blue: The said Balls to be in a Canton, at the upper Corner of the Flag next the Staff.

4. Merchant Ships are to wear a red Ensign with the Union Jack in a Canton, at the upper End next the Staff; and a white Jack with a red St. George's Cross passing quite through the same.

5. Privateers

5. Privateers are to wear the same Ensign as Merchant Ships, and a red Ensign with the Union-Jack in a Canton, at the upper Corner next the Staff.

6. Ships in the Service of any Publick Office, are to wear the same Ensign and Jack as Privateers, with this Addition, that in the Body of the Jack or Ensign, shall be described the Seal of the Office they belong to.

7. Merchant Ships, or Ships employed in the Service of any Publick Office, or in raising Seamen, are not to wear Pendants, or any Thing that may be taken for them: And if any Ship shall wear Flags, Pendants, or Colours they have not a Right to, the Commanders of such Ships are liable to be prosecuted in the High Court of Admiralty, and the Flags, &c. so worn, may be seized!

8. All Foreign Ships riding in any of His Majesty's Ports or Roads with false Colours, are to be admonished; and if they persist therein, are liable to be put under an Arrest.

Of the Appointment of Officers in Foreign Parts.

1. **C**OMMANDERS in Chief, having Power to appoint Officers in Ships under their Command, are not to execute that Power while within the Channel.

2. None are to be preferred to Lieutenants, but such as have passed their Examination; which, if not already done at the *Navy-Office*, the Commander in Chief may authorize any three of his principal Commanders to examine them; and if they have served Six Years at Sea, and have been rated two of the said six Years as Midshipmen or Mates, produce regular Journals, good Certificates, and are not under twenty Years of Age, they may be preferred.

3. Second Masters are to be provided for first, according to their Seniority and Qualification, before any new one is made, and Commanders in Chief may appoint such of their Officers as are Members of the *Trinity-House*; or if none, each of their Commanders or Masters as they think proper, to examine Masters or Mates; and according to

their Certificates may promote them to any Vacancies in the Voyage ; but at their Return Home, they are to be re-examined before the Corporation of *Trinity-House*.

4. Surgeons and their Mates must be examined by some of the principal Surgeons of the Fleet or Squadron, if they have not already passed their Examination at *Surgeons-Hall*; and must be preferred to such Ships only, as they are qualified for by their Certificate : If a Physician is in the Fleet, he shall preside at the Examination ; but on their Return home, must be re-examined before the Governors of the *Surgeons Company*.

Of SALUTES.

1. **W**HEN a Flag Officer salutes the Admiral, and Commander in Chief of the Fleet, he is to give him fifteen Guns ; but when Captains salute him, they are to give him seventeen Guns.

2. The Admiral and Commander in Chief of the Fleet is to return two Guns less to Flag-Officers, and four less to Captains.

3. Flag-Officers, saluting their superior or senior Officers, are to give them thirteen Guns.

4. Flag-Officers are to return an equal Number of Guns to Flag-Officers, bearing their Flags on the same Masts, and two Guns less to the rest, as also to Captains.

5. When a Captain salutes an Admiral of the White or Blue, he is to give him fifteen Guns ; but to Vice and Rear-Admirals, thirteen Guns.

6. When a Flag-Officer is saluted by two or more of His Majesty's Ships, he is not to return the Salute 'till all have finished, and then to do it with such a reasonable Number of Guns as he shall judge proper.

7. In case of the Meeting of two Squadrons, the two Chiefs are only to exchange Salutes. And if single Ships meet a Squadron consisting of more than one Flag, only the principal Flag is to be saluted.

8. No

8. No Salutes are to be repeated by the same Ships, unless there has been a Separation of Six Months at the least.

9. Captains are not to salute one another. A Flag-Officer commanding in Chief, upon the first hoisting his Flag, is to be saluted by all the Ships present, with such a Number of Guns as are prescribed in the above Regulations.

10. Foreigners meeting with any of His Majesty's Ships within His Majesty's Seas, as far as *Cape Finisterre*, are expected to take in their Flag and strike their Top-sail; but on Refusal are to be compelled to it, and not suffer any Dishonour to be done to His Majesty.

11. His Majesty's Subjects are also to strike their Top-sails in passing by any of His Majesty's Ships, and on Omission, the Master of such Ship is liable to be proceeded against in the *High Court of Admiralty*.

12. His Majesty's Ships are not to strike to any; and that in other Parts, no Ship of His Majesty's is to strike her Flag or Top sail to any Foreigner, unless such Foreign Ship shall have first struck, or at the same Time strike her Flag or Top sail to His Majesty's Ship.

13. Upon all Occasions Flag-Officers and Commanders of His Majesty's Ships, are to maintain His Majesty's Honour, give Protection to his Subjects, encourage them in their lawful Commerce; and not to injure his Friends and Allies.

14. A Foreign Admiral shall receive Gun for Gun; if he be a Vice-Admiral, the Admiral is to return two less; if a Rear-Admiral, the Admiral and Vice-Admiral shall return two less. If the Ship be commanded by a Captain only, the Flag-Officers shall return two less, and Captains an equal Number.

15. Any of his Majesty's Ships coming to an Anchor in a Foreign Port or Road, within Cannon Shot of its Forts, the Captain may salute the Place with such a Number of Guns as hath been customary, on good Assurance of having the like Number returned, but not otherwise.

16. But if the Ship bears a Flag, the Flag-Officer is first carefully to inform himself how Flags of like Rank, belonging to other crown'd Heads, have given or returned Salutes, and then to insist upon the same Respect.

17. Admirals, Commanders in Chief, or Captains of Ships of War of Foreign Nations, Foreign Noblemen, and Strangers of Quality, also the Factories of the King's Subjects, coming on Board to visit the Ship, may be saluted by the Commanders of His Majesty's Ships, with a Number of Guns at Discretion, suitable to the Occasion and Quality of the visiting Persons; but such Commander is nevertheless accountable for any Excesses in the Abuse of this Liberty; but if any Commander or Senior Captain be present, his Leave and Consent must first be had.

18. Merchant Ships, whether Foreigners or Subjects, saluting the Admiral of the Fleet, are to be answered by Six Guns less; from other Flag Ships by four less; and from Captains by two less.

19. If several Merchant Ships salute in Company, no Return is to be made, 'till all have finished, and then by such a Number of Guns as shall be thought proper; but though the Merchants Ships should answer, no second Return is to be made.

20. Dukes or Ambassadors at coming on Board, and also at their Departure, are to be saluted with fifteen Guns; other Publick Ministers or Persons of Quality, with eleven, or less according to the Degree of their Quality. But nothing is here to be understood to restrain Commanders in their Respect to any of the Royal Family, who are always to be saluted at the Discretion of the Commander in Chief.

21. The Anniversary Days of the Birth, Accession and Coronation of the King, the Birth of the Queen, Restoration of King Charles the Second, and Gunpowder Treason, are to be solemnized by His Majesty's Ships, if they are in Port, with such a Number of Guns as the Chief Officer shall think proper, not exceeding twenty-one each Ship.

22. His Majestys Ships of War are not to salute His Majesty's Forts or Castles in *Great-Britain* or *Ireland*.

23. When

23. When a Flag-Officer or a Commander in Chief dies at Sea, or in a Road, at the putting of the Corpse into the Sea, or carried a-shore, the Commanding-Officers shall cause such a Number of Guns to be fired, Funeral-wise, from the Ships in Company, as he shall think proper, and the Flag to be struck half Mast.

24. At the Funeral of a Captain dying at Sea, or in a Road, the Commander in Chief shall appoint such a Number of Guns as he shall think fit, not exceeding twenty, to be fired from the Ship he commanded, and the Pendent to be lowered down.

25. At the Funeral of a Lieutenant, dying as before, there shall be fired, from the Ship he belonged to, three Volleys of Small Arms by the Direction of the Commander in Chief.

26. No Merchant Ship is to fire Guns in any Road or Port, after the Watch is set, if any of His Majesty's Ships be there.

Of the Captain or Commander.

1. **W**HEN a Captain or Commander receives a Commission to command one of His Majesty's Ships, he is immediately to repair on Board, and visit her throughout.

2. He is to give his constant Attendance on Board, and quicken the Dispatch of the Work; and send to the *Admiralty* and *Navy-Offices* Weekly Accounts, or oftener, if necessary, of the Condition and Circumstances she is in, and the Progress made in fitting her out.

3. He is not to lie out of the Ship, unless by Leave from the Admiralty or Commander in Chief.

4. When he cannot personally apply to the Commissioners of the Navy, he is to do it in Writing.

5. He is to apply to the *Navy-Board* for an Account of the Qualities of the Ship; but if a new Ship, to advise with the Master Shipwright who built her.

6. He

6. He is to take Inventories of all the Stores committed to the Charge of his Officers respectively, and to require from his Boatwain, Gunner, Carpenter, and Purser, Counterparts of their respective Indents.

7. He is to cause his Clerk to be present, and to take an Account of all Stores and Provisions that come on Board, and when; which Accounts he is to compare with the Indents, in Order to prevent any Fraud or Neglect.

8. He is to keep Counter-Books of the Expence of the Ship's Stores and Provisions, whereby to know the State and Condition of the same; and to audit the Accounts of the Officers entrusted therewith, once a Week, in Order to be a Checque upon them.

9. He is to use his best Endeavours to get the Shipmann'd, and not to enter any but Men of able Bodies, and fit for Service; he is to keep the established Number of Men compleat, and not to exceed his Complement.

10. He is to keep a regular Muster-Book, setting down therein the Names of all Persons entered to serve on Board, with all Circumstances relating to them.

11. He is to be present at all Musters, and to make the same Remarks on his own Book against the Mens Names, as the Clerk of the Checque, or Muster-Master do.

12. He is to demand from the Clerk of the Checque, at the Port where the Ship is, before she departs from his District, a perfect Muster-Book.

13. He is himself to Muster the Ship's Company at least once a Week in Port, or at Sea where there is no Clerk of the Checque, and to be very exact in this Duty; and if any Person shall absent himself from his Duty, without Leave for three successive Musters, he is to be marked as a Run-away on the Ship's Books.

14. He is to send every two Months two Muster-Books compleat to the *Navy-Office*, signed by himself and the Officers who sign Tickets.

15. He is to make a List of such Seamen as are Run, inserting the same at the End of the Muster-Books, and to distinguish

distinguish the Time, Manner, and by what Opportunity they made their Escape.

16. If the said Desertion happens in any Port of this Kingdom, he is to send up to the Secretary of the *Admiralty*, their Names, Description, Places of Abode, and all the Circumstances of their Escape.

17. He is to make out Tickets for all such Seamen as shall be discharged from his Books, which are to be signed by himself, the Master, Boatswain and Purser; and the Gunners and Carpenters are to sign for their respective Crews. He is to deliver the Tickets to none but the Party; and if he be dead or absent, he is to send the Ticket forthwith to the *Navy-Office*.

18. If the Ship be in *Great Britain* or *Ireland*, he is every Month to send to the *Admiralty-Office* a List of all Men discharged in the preceding Month, with the Reasons thereof: Nor is he to discharge any Man, but for one of the following Reasons: *viz.* Death, Preferment in some other of His Majesty's Ships, Unfitness for Service, Officers Servants rated, or by Admiralty Order, or Commander in Chief; and to express the Cause upon the Ticket.

19. He is not to suffer the Ship's Stores to be misapplied or wasted, and if such Loss happen by the Negligence or Wilfulness of any of the Ship's Company, he is to charge the Value thereof against the Wages of the Offender, on the Muster and Pay Books.

20. He shall make no Alteration in any Part of the Ship.

21. He is to keep Centinels constantly posted at the Scuttle leading into all the Store-Rooms, and no Person is to pass down but by Leave from the Captain or Commanding-Officer of the Watch; which Leave must be signified to the Centinel from the Quarter-Deck.

22. He is not to spare any Provisions or Stores to any of His Majesty's Ships, but where the Necessity is evident, and by the Direction of his Commanding Officer, and is also to give his Officers a Warrant in Writing for it.

23. He is to observe seasonable Times in setting up his Shrouds and other Rigging, especially when they are new and

and apt to stretch; and also to favour his Masts as much as possible.

24. Before the Rigging and other Stores are cast up, he is first to order a Survey thereof to be taken.

25. He is to cause such Stores as require it to be frequently surveyed and aired, and their Defects repaired; and the Store-rooms to be kept airy, and in good Condition.

26. He is not to make use of the Ship's Sails for covering Boats, or for Awnings.

27. The Decks or Gratings are not to be scraped oftener than is necessary; but are to be washed and swabbed once a Day, and Air let into the Hold, as often as may be.

28. He is to permit every Officer to possess his proper Cabbin, and not to make any Variation therein.

29. No Person is to lie upon the Orlop but by Leave from the Captain, who is to take all possible Care of the Cables.

30. Such as smoke Tobacco, are to take it in the Fore-caste, and in no other Place.

31. Care is to be taken every Night on setting the Watch; that all Fire and Candle be extinguished in the Cook-room, Hold, Steward-Room, Cock-pit, and every where between Decks; nor are Candles to be used in any other Part of the Ship but in Lanthorns, and that also not without the Captain's Leave.

32. He is not to suffer any Person to futtle or sell any Sorts of Liquors to the Ship's Company, nor any Debts for the same to be inserted in the Slop-Book, on any Pretence whatsoever.

33. Before the Ship proceeds to Sea, he is without Partiality or Favour, to examine and rate the Ship's Company, according to their Abilities, and to take Care that every Person in the Ship, without Distinction, do actually perform the Duty for which he is rated.

34. Before the Ship sails, he is to make a Regulation for quartering the Officers and Men, distributing them to the Great-Guns, Small-Arms, Rigging, &c. and a List of such Order and Distribution is to be prefixed up in the most publick

publick Place of the Ship. He is also frequently to exercise the Ship's Company in the Use of the Great-Guns and Small Arms.

35. If any Officers are absent from their Duty when the Ship is under Sailing-Orders, he is to send their Names to the Secretary of the *Admiralty*, with the Cause of their Absence.

36. He is to take of his Boats, and secure them before blowing Weather; also the Colours are not to be kept abroad in windy Weather, but due Care taken of them.

37. He is not to carry any Women to Sea, nor to entertain any Foreigners to serve in the Ship, who are Officers or Gentlemen, without Orders from the *Admiralty*.

38. When he is to sail from Port to Port in Time of War, or Appearance thereof, he is to give Notice to Merchantmen bound his Way, and to take them under his Care, if they are ready; but not to make unnecessary Stay, or deviate from his Orders on that Account.

39. He is to keep a regular Journal according to Form prescribed, and at the End of every Six Months, he is to send a Copy of the same to the Secretary of the *Admiralty*; and at the Expiration of the Voyage, to give in a General Copy, to the *Admiralty* and *Navy-Offices*.

40. He is, by all Opportunities, to send an Account of his Proceedings to the Secretary of the *Admiralty*, with the Condition of the Ship, Men, &c. he is likewise to keep a punctual Correspondence with every of the Publick-Offices, in whatsoever respectively concerns them.

41. He is not to go into any Port, but such as are directed by his Orders; unless necessitously obliged, and then not to make any unnecessary Stay. If employed in Cruizing, he is to keep the Sea the Time required by Orders, or give Reasons for acting to the Contrary.

42. He is to take great Care in the Choice of a good Birth, and examine the Quality of the Ground for Anchoring, where he is a Stranger.

43. He is not to obstruct *Custom House* Officers in coming on Board, or in any Part of their Duty; they are also to be

be victualled as the Ship's Company, if Necessity require it.

44. He is to demand all Seamen (His Majesty's Subjects) from on Board any Foreign Ship he may meet with, obliging their Master to pay them their Wages to that Day.

45. In Foreign Parts he is to use the utmost good Husbandry in careening the Ship, and not to do it, but under an absolute Necessity.

46. None are to be employed in careening and refitting the Ship, but the Ship's Company, unless Sickness or Death hath rendered it necessary to hire others; and for the Encouragement of his own Men, whether on Board their own or any other of his Majesty's Ships, they are entitled to an Extraordinary Allowance *per Day*; and to prevent any abuse herein, each Ship has the Number of operative Men limited.

47. If he is obliged to take up Money Abroad for the Use of the Ship, he is to negotiate it at the best Exchange.

48. He is to advise the proper Office of what Bills he draws, with the Reasons thereof, and with the said Bills send Duplicates of his Accounts, and Vouchers, for his Disbursements.

49. He is to take Care that all Stores bought Abroad be delivered to the proper Officers; he is to take their Receipts for the same.

50. Upon the Death of any Officer, he is to take Care that an Inventory be taken of all his Books and Papers, and that the same be sealed up, and reserved for the Use of such as shall have a legal Right to demand them.

51. When any Officer who has the Custody of Stores or Provisions, shall die, be removed or suspended, he is to cause an exact Survey and Inventory to be taken forthwith of the Remains of such Stores, which is to be signed by the Successor who is to keep a Duplicate thereof, and also by the Surveying Officers.

52. Upon his own Removal into another Ship, he is to shew the Originals of all such Orders as have been sent to him,

him, and remain unexecuted, to his Successor, and leave with him attested Copies of the same.

53. He is to leave with his Successor a compleat Muster-Book, and send up all the other Books and Accounts under his Charge, to the Offices they respectively relate to.

54. When a Captain is removed by Commission from one Ship to another, he is allowed to carry along with him the following Number of Men, including his Servants, viz. from the first Rate, Eighty; a second Rate, Sixty-five; a third Rate, Fifty; a fourth Rate, Forty; a fifth Rate, Twenty; and a sixth Rate, Ten.

55. In case of Shipwreck or other Disaster, whereby the Ship may perish, the Officers and Men are to stay with the Remains as long as possible, and save all they can, and for their Encouragement they shall continue in Pay during their Attendance on that Service: and if the Provisions of the Ship are lost, the Captain is to subsist them.

56. When the Ship comes to the Port where she is to be laid up, the Captain is to exhibit an exact Account of all the Qualities of the Ship, and the Commissioner of the Navy at that Port, and to transmit a Duplicate of the same to the Navy-Board.

57. He is to prepare five Pay Books, with the Assistance of his Purser, and to transmit the same to their Navy-Board, signed by himself and signing Officers, who are to attend the Payment thereof.

58. He is not to depart, nor suffer the Officers or Men to go a-shore, until the Ship is wholly unrigg'd and clear, and to deliver so into the Charge of the Officers of the Yard.

59. If there be Occasion to discharge any of the Men, when the Ship is under Orders to be paid off, they are to apply to a Flag-Officer, or to a Commissioner of the Navy, who will examine their Qualifications, if agreeable to sign their Tickets, otherwise they will be paid Ordinary.

60. He is responsible for the whole Conduct, and good Government of the Ship, and for the due Execution of all Regulations which concern the several Duties of the Officers

and Company of the Ship, who are to obey him in all Things, which he shall direct them for his Majesty's Service.

61. He is also answerable for the Faults of his Clerk; nor can he receive his Wages without the proper Certificates, and must make good all Damages sustained by his Neglect or Irregularity.

The LIEUTENANT.

1. WHEN he receives his Commission he is to repair on Board, and diligently execute all such Orders as he shall receive from his Commander, for His Majesty's Service, nor absent himself from the Ship without Leave.

2. He is to keep a List of the Officers and Men in his Watch, muster them, and report the Names of the Absentees.

3. He is to see that good Order be kept in his Watch, that no Fire or Candle be burning, and that no Tobacco be smoked between Decks.

4. He is not to change the course of the Ship at Sea, without the Captain's Directions, unless to prevent an immediate Danger.

5. No Boats are to come on Board, or go off, without the Lieutenant of the Watch being acquainted with it.

6. He is to inform the Captain of all Irregularities, and to be upon Deck in his Watch.

7. He is to see that the Men be at their proper Quarters in Time of Action; and that they do all perform their Duty.

8. He is to keep a Journal, and at the End of the Voyage to deliver Copies thereof into the *Admiralty* and *Navy-Offices*.

9. The youngest Lieutenant is frequently to exercise the Seamen in the Use of small Arms: And in Time of Action he is to be chiefly with them.

10. He is to take great Care of the Small-Arms, and see that they be kept clean and in good Condition for Service.

The

The MASTER.

1. **H**E is to repair on Board, and obey his Commander's Orders, for the Dispatch of what is to be done towards the fitting her out.

2. He is to inspect the Provisions and Stores sent on board, and of what appears not good, he is to acquaint the Captain.

3. He is to take Care of the Ballast, and see that it be clean and wholesome, and sign the Quantity delivered.

4. He is to give his Directions in stowing the Hold, for the most Room, trimming the Ship, and for Preservation of the Provisions.

5. He is to take signal Care that the Rigging and Stores be duly preserved; and to sign the Carpenter's and Boat-swain's Expence Books, taking Care not to sign to undue Allowances.

6. He is to navigate the Ship, under the Directions of his superior Officer, and see that the Log and Log-Book be duly kept.

7. He is duly to observe the Appearances of Coasts; and if he discovers any new Shoals, or Rocks under Water, to note them down in his Journal, with their Bearing and Depth of Water.

8. He is to keep the Hawser clear when the Ship is at Anchor.

9. He is to provide himself with proper Instruments, Charts, and Books of Navigation, and keep a regular Journal, noting therein the going out and coming in of all Stores and Provisions; and when the Ship is laid up, he is to deliver a Copy of the same into the *Navy-Office*, together with his Log-Book.

10. He is to be very careful not to sign any Accounts, Books, Lists or Tickets, before he has thoroughly informed himself of the Truth of every particular contained in the same.

11. He is to make himself Master of the lunar Method of determining the Longitude at Sea, and with the Assistance of his Mates, to put the same in Practice as often as possible. *N. B.* The most easy Method of clearing the observed Distance for the above Purpose is by Dr. *Shepherd's* Tables; see *Atkinson's* Epitome of Navigation.

The Boatswain, and Master Sailmaker.

THE Boatswain is to receive into his Charge the Rigging, Cables, Cordage, Anchors, Sails, Boats, &c. by Indenture from the Surveyor of the *Navy*, and to use great Care in the Disposition of the same.

2. He is not to cut up any Cordage or Canvas without an Order in Writing from the Captain, and under the Inspection of the Master; and always to have by him a good Quantity of small Plats for Security of the Cables.

3. He and his Mates are to assist and relieve the Watch, see that the Men attend upon Deck, and that the working of the Ship be performed with as little Confusion as may be.

4. His Accounts are to be audited and vouched by the Captain and Master, and presented to the Surveyor of the *Navy*; and until such Accounts are passed, he is not to receive his Wages.

5. If he has Cause of Complaint against any of the Officers of the Ship, with Relation to the Disposition of the Stores under his Charge, he is to represent the same to the *Navy Board* before the Pay of the Ship.

6. He is not to sign any Accounts, Books, Lists, or Tickets, before he has thoroughly informed himself of the Truth of every Particular therein contained.

7. The Master Sailmaker is to be warranted from the *Navy Board*, without which none are to be rated in that Capacity.

8. He is, with his Mate and Crew, to examine all Sails that are brought on Board, and to attend all Surveys and Conversion of Sails.

9. He

9. He is always, and in due Time, to repair, and keep the Sails in Order fit for Service.

10. He is to see that they are dry when put into the Store Room, or very soon to have them taken up and aired, and see that they are secured from Drips, Damps, and Vermin.

11. When any Sails are to be returned into Store, he is to attend the Delivery of them, for their greater Safety.

The Gunner, Armourer, and Gunsmith.

1. **T**HE Gunner is to apply to the Store-keeper of the Ordnance, and receive from him by Indenture the Ordnance, Ammunition, Small-Arms, and other Stores allowed for the Voyage; and if any Part thereof be not good, he is to represent the same to the Captain.

2. He is to see that the Powder-Rooms be well secured, and in right Order before the Powder is brought in.

3. Powder is to be taken in at those Places which are appointed by the *Admiralty*.

4. The Powder in the Copper-hooped Barrels to be lodged in the Ground-Tire; to see that the Doors of the Powder-Rooms be fast locked, the Scuttles well shut and covered, and to deliver the Keys to the Captain.

5. He is timely to advise the Captain when any Powder comes on Board; nor is he to remove it, prepare Fuzees, &c. without the Captain's Directions, so the Fire and Candles may be extinguished, Centinels posted, and all Care used to prevent Accidents.

6. He is not to go or send any one into the Powder-Room, but by Leave from the Captain, and to take Care that they have nothing about them that will strike Fire in falling.

7. No more than three Rounds of Parchment Cartridges are to be filled at a Time.

8. He may receive additional Stores, if the Ship is ordered to any Station in *America*; but none of those additional Stores are to be used, until the first is expended.

9. Perishing Stores are to be surveyed and condemned;

but if near any Port in *England*, he is not to throw them over-board, but to return them into Store.

10. Empty Powder-Barrels are not to be staved, but preserved to shift such as may be decayed.

11. By Direction from the Captain, he is to allow a proper Quantity of Powder and Shot for Exercise.

12. The Proportion of Powder on the Occasion of Service or Scaling, he is to allow as *per* Regulations of the *Admiralty*.

13. In Time of Action, he is to reduce the Allowance of Powder by Degrees, until the same be lessened to one-third of the Weight of the Shot. He is not to swab a Gun when it grows hot, for fear of splitting.

14. He is to take Care that the Guns be placed upon their proper Carriages, for by this Means they will fit, and stand a proper Height from the Sill of the Ports.

15. He is not to scale the Guns oftener than the Ship is refitted, unless upon extraordinary Occasions, and with the Captain's Orders; and when they are loaded for Service, he is to see them well tomponed, and the Vents fitted with Gum.

16. He is to use great Caution, in order to prevent Damage to such Guns as are struck in the Hold, by paying them all over with a Coat of warm Tar and Tallow mixt, &c.

17. He is to take Care of the Stores committed to him; for no Waste, that is, not perishable, will be allowed him, only reasonable Wear; and if any Accident, it must be vouched by the Captain.

18. He is to keep a Book of Expences, according to the Methods prescribed by the *Admiralty*, and the Stores expended are not to be expressed in Figures, but in Words at Length.

19. He is to keep the Boxes of Grape-Shot and Hand-Granadoes.

20. He is to observe upon the Guns, the Notches or Sights on the Base or Muzzle Rings, for the better guiding the Aim.

21. He

21. He is not to load the Guns with unfit Mixtures, which do greatly endanger their splitting.

22. He is not to start the Hand Granadoes, but return what are left at the End of the Voyage in *Statue quo*.

23. In cutting up the Cordage, he is to observe the prescribed Regulations, and when he discharges himself of the Cordage expended, he must charge himself with the Breechings, &c. into which it shall be converted; the like Method must be used in the Conversion of any other Stores.

24. When the Ship wants new Supplies, he is to draw out an Account, with an Inventory of what remains, present the same to the Captain, which being by him vouched, must be sent to the *Board of Ordnance*.

25. An Abstract of his Account, he must also make out half-yearly, according to the Method prescribed.

26. He is to keep good Order in the Gun Room, and suffer none to lie there but such as have a Right, or whom the Captain shall direct: And cause a careful Man of his Crew to watch there every Night.

27. He is to be frugal of his Match, to burn no more than is allowed, and that over a Tub of Water.

28. After an Engagement, he is to procure a Survey to be made of the Powder in General.

29. He is to keep an Inventory of all the Arms and Utensils sent out of the Ship, and get the same signed by the Officer appointed to command the Detachment, and witnessed by the Captain's Clerk.

30. When the Ship comes into the Port to be refitted, &c. he is to get the Ship cleared of the Guns, and other Ordnance Stores, as soon as possible.

31. He is to take Care that the Stores be safely returned, and he and the Armourer are to attend the Store-keeper and other Officers belonging to the Ordnance, when his Stores so returned are surveyed on Shore.

32. At the End of the Voyage, he is to deliver his Accounts into the *Office of Ordnance*.

33. If he has Cause of Complaint against any of the Officers of the Ship, with Relation to the Disposition of the
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the Stores under his Charge, he is to represent the same both to the *Navy* and *Ordnance Boards*, before the Pay of the Ship.

34. No Person shall be warranted as Gunner, before he has passed an Examination before a Mathematical Master, and three able Gunners of the Navy, and from them procure a Certificate of his Qualification.

35. The Armourer and Gunsmith are appointed by Warrant from the Board of *Ordnance*.

36. They are to assist the Gunner, in the Survey and Receipt of the Small Arms, and to keep them clean and in good Order; but not to take them too often to Pieces, which is detrimental to the Locks, &c.

37. Their Station is in the Gun-Room, where they are to observe the Gunner's Orders.

38. The Gunner is to receive the Armourer's Tools from the Office of *Ordnance*, and is to account for them at the End of the Voyage, in the same Manner as for the other Stores under his Charge.

39. In Foreign Parts, if the Small Arms want such Repairs as cannot be done Abroad, the Captain must cause a Survey, and the Defectives may be sent ashore to be repaired; but the Armourer or Gunsmith must attend to see the Reparations well executed.

40. They are to return the Small Arms into Store, clean and in good Order; and must produce Certificates (from the Officers of *Ordnance* where the Arms are returned) that they have discharged their Duty well.

The CARPENTER.

1. **H**E is to take upon himself the Care and Preservation of the Ship's Hull, Masts, &c. and also the Stores committed to him by Indenture from the Surveyor of the Navy.

2. He is to visit and inspect all Parts of the Ship daily, to see that all Things are well secured, caulked, order the Pumps, and make Reports to the Captain.

3. In

3. In an Engagement he is to be watchful, and have all Materials ready to repair Damages.

The P U R S E R.

1. **H**E is to victual the Ship every three Days, or as frequently as may be in Petty Warrant, when she is ordered to be fitted out for Sea; to see that she is duly supplied, and to take Care that no Part of the Sea Provisions be expended, while the Ship is in *Extra* Petty Warrant.

2. He is to enter no Man on his Books, or supply him with Provisions, but by Note in Writing from the Clerk of the Cheque, or the Commanding Officer on Board.

3. He is to take Care to indent in Time for, and get the full Quantity of Provisions, Water Casks, &c. on Board.

4. He must take Care that the Provisions be good and in sound Casks, or object against them, till a Survey is made; he is also to take the Marks of the Casks, &c. that he may know from whom and from whence they came.

5. If the Ship cannot contain all her Provisions, he is to certify the same, and the Quantity short of each Species ordered, so that the Remainder may be supplied another Way.

6. He is to procure Certificates, under the Hands of the Commander and Master, of the Quantity of Provisions received into the Ship, or he will not be allowed to indent for the same.

7. He is not to discount any Part of the Credit on his Indents for Money; nor indent for fresh Supplies before his Credit is satisfied.

8. He is to provide the Ship with Coals, Wood, Turnery Ware, Candles, Lanthorns, &c. to enable him to do which, he is allowed Twelve-pence a Man *per* Month, whilst in *Extra* Petty Warrant, and Fourteen-pence in Sea Victualling, unless the Complement be sixty Men or under, then Seventeen-pence a Man *per* Month during Sea-Victualling.

ling. He is also allowed Four-pence a Tun for drawing of Beer, and two Shillings a Month Loading Charges; and if more than sixty Men, ten Groats a Month *Adz. Money*, all payable after signing his Indent.

9. He is to be careful to inspect the good Order, Stowage, and Preservation of Provisions, and that the oldest be expended first.

10. If any of the Provisions be unfit for Use, he is to procure a Survey upon the same, by proper Officers, who are to make a regular Report thereof.

11. No Officers of the Ship are to be employed in the Survey, if any other Ship be in Company; and if the Ship be alone in a Port, where there are Naval Officers, the Captain is to join one to the Survey.

12. Condemned Provisions are not to be thrown over-board, except Cheese, if the Ship is at or near any Victualling Port, but the same is to be returned to the Agent: The same is to be done if the Ship is at Sea, and an Agent from Victualling Vessels be in Company; but if there be no Agent, or he shall refuse to receive them, he may then (by Warrant from the Commander in Chief, or from his own Captain, if the Ship be alone) cause the said Provisions to be flung overboard, taking a Certificate of the Quantity, and also an Account when, where, and from whom the said Provisions were received.

13. If Provisions shall be cast by Survey, after the Time they were so cast, he is to expect no Allowance on such Surveys, with a satisfactory Certificate, why the said Provisions were not sooner expended.

14. Condemned Butter is never to be flung over-board, but returned into Store, unless the Boatswain shall want any for the Ship's Use, and then he must be charged therewith.

15. Leakage of Beer must be surveyed by Warrant from the Captain to the Master, and two (or more) Officers of the Ship, who are to report under their Hands on the Back of the said Warrant, the Quantity leaked out, and the Reason and Occasion of the Leakage: The Cooper's Oath is also required thereto.

16. He is never to keep Allowance for Leakage of Wine, Oil, Brandy, Rum, or Arrack; there being proper Conveniences made in the Hold for securing the said Liquors from any Abuses whatsoever.

17. He is to transmit to the Commissioners of the *Viſtual-ling*, Duplicates of all Orders, Reports, Certificates, &c. relating to Surveys attested, reserving the Originals in his own Hands, for the passing his Accounts.

18. If any Species fall short, and the Want thereof is supplied out of another Species, when the Ship receives a Supply, he must replace a like Quantity of the same Species taken away in Lieu thereof, thereby to make no extraordinary Charge.

19. If a Cask of Beef or Pork fall short of the Contents marked on the Head, by Warrant from the Captain, he must have a Survey, and report the same, and either himself, or Steward, is to make Oath at the Foot of the Survey, to the Truth thereof; and that none of the said Casks were opened, or any Pieces taken out, before the Time of the Survey, to the best of their Knowledge. And after such a Discovery as this, it is expected, that an exact Account be exhibited of the Number of Pieces of Beef and Pork, in all the Casks that shall be expended.

20. He is not to sell, or make any undue Use of the Stores or Provisions under his Charge. And the more to discourage Purfers from selling Provisions, it is hereby ordered, that in those Years where the Price of any Species shall exceed the Sum usually charged on Purfers in Debt, he shall be obliged to pay the full Value His Majesty gave for the Provisions.

21. He is not to purchase any Provisions where there is an Agent, or in the Way of one; but where there is no Agent, on Application, the Captain may cause the Remains to be surveyed, and where there is real Want, by his Warrant the Purser may procure the same. The Receipts of Payment are to be witnessed by two Commission or Warrant Officers, the Quantities and Prices are to be expressed; and he also must procure a Certificate from the Governor
or

or Consul, where there are such, or else from two or three eminent Merchants, that the said Bargains were at Market Price.

22. He is to observe, that Store-house Room and Commission-Money will not be allowed in his Accounts; and Sloops and Boats never, but on an indispensible Necessity, and by his Commander's Orders; and then he must produce a Certificate, signifying the Occasion of their being hired.

23. If it is necessary for the Purser to draw Bills of Exchange upon the Commissioners of the *Victualling*, the Money is to be taken up by Publication, and the Captain is to attest the Bills: The Purser also must procure Certificates from the Governor, Consul, or Merchants, of the Currency of Exchange at that Time, which he must transmit home with the Bills, and also an Account how the said Money has been laid out.

24. When he returns home, he is to deliver into the *Victualling-Office*, an Account Current of all his Disbursements, for the Service of the Ship at large, and reduced into *English* Coin, with his particular Affidavit at the Foot of the Account.

25. If Water is wanted, and cannot be had without Money, he may (by Warrant from the Captain) purchase what is necessary, taking Receipts, witnessed by two Commission or Warrant Officers, and a Certificate from the Captain of the Quantity brought on Board.

26. The Purser shall employ his Cooper to repair defective Casks, where they cannot be returned into Stores, and that without making any Charge thereupon. He is also to keep a distinct Account of the waste Staves and Iron Hoops; and himself or Cooper, shall make Oath to the Truth thereof.

27. He is not to expend any Cask for *Extra-Service*, without an Order from the Captain, and also a Certificate expressing the Quantity expended, when and for what Service: But he is to observe, that Casks used for washing Tubs, steep Tubs, &c. will not be allowed as an *Extra* Expence.

28. If Loss happens in Provisions or Stores by Action with the Enemy, or other unavoidable Accidents, he is to produce a Certificate from the Captain of what was so lost; with the Occasion; and himself, or some other who was present, must make Oath, that it did not happen through any Neglect or Default.

29. He is to keep a very regular and exact Muster-Book, and to set off against their Names the Slop Clothes, Dead Mens Clothes, Beds and Tobacco, they have been supplied with, in order to be Voucher for the Tickets made out by the Captain for Wages. He is to note down also, the Times of beginning and ending Petty Warrant or Sea-Victualling, Short-Allowance, the Nature and Quantity of the said Allowance, and what has been paid on that Account.

30. He may at appointed Times, and in some publick Place, sell Tobacco to the Seamen, not exceeding two Pounds per Month to a Man, at the Rate settled by the *Navy Board*.

31. He may not Victual Supernumeraries, but by Warrant from the Captain; and if the Captain has received Orders for so doing, the Purser must procure an attested Copy also of the said Orders; on the Back of the Warrant he is to enlist their Names, and at the Foot thereof to procure the Captain's Certificate.

32. When he Victuals other Ship's Men, by Order, Re-
payment must be made from the Purser of that Ship; and in Case of Refusal, he must send a List of the said Mens Names, and Time (certified by his Captain) to the *Victualling*.

33. He is not to spare Provisions or Stores to other Ships but by Warrant, and on the Back to take the Purser's or Steward's Receipt, mentioning the Quantity in Words at Length, Time when, and Place where, and to send a Copy of the said Receipt to the Commissioners of the *Victualling*.

34. He is to keep a Sick-Book, mentioning the Mens Names sent Sick out of the Ship, their Number on the Ship's Books, when and where sent, Number of Days absent, which is to be delivered into the *Comptroller's-Office*.

G

35. When

35. When the *Victualling-Office* sends Vessels to bring away the Provisions from the Ship, the Purser is to send therewith his Steward, or some careful Person, to see their safe Delivery to the Officer appointed to receive them.

36. Each Butt when returned, if shaken, shall consist of twenty-six Staves; a Puncheon, twenty-two; a Hoghead, twenty; a Barrel, seventeen; Heading included, two Pieces reckoned one Stave.

37. A regular Survey must be taken, before the Provisions are returned into Store, and the Purser must make an Affidavit, that the said Provisions were received out of His Majesty's Stores, or from Persons under Contract. The like Oath is to be made by him of all the Casks, Staves, Iron Hoops, and Biscuit-Bags returned to the Office. Provisions furnished under Warrantry, such as Beer, Butter, and Cheese, he shall receive no Allowance for them, if they are cast by Survey after the Time of Warrantry.

38. He is to pass his Accounts within six Months after the Ship is paid off at furthest; and at the same time to have his Affidavit ready, touching every Particular relating to his Accounts.

39. If he has Cause of Complaint against any of the Officers of the Ship, with Relation to the Disposition of the Provisions or Stores under his Charge, he is to represent the same to the *Navy-Board*, before the Ship is paid off.

40. He is not to sign any Accounts, Books, Lists or Tickets, before he has fully informed himself of the Truth of every Particular contained therein.

The S U R G E O N.

1. **W**HEN a Surgeon is warranted, he is to provide Instruments and a Chest of Medicines, according to the Rules of the *Navy*; and the same must be viewed, examined and approved by the Physicians of the Sick and Wounded, or the Physician of *Greenwich-Hospital*, in Conjunction with the Governors of the Surgeons Company, who will give him a Certificate thereof.

2. When

2. When the Chest is recruited, the like Method is to be taken; and all such Medicines or Drugs, as shall be found in the Chest, not fit for Use, must be destroyed.

3. He is to provide himself with a competent Number of printed Sick Tickets, from the *Sick and Wounded-Office*.

4. He is to inspect and take Care of the Necessaries sent on Board for the Use of Sick Men, if not good, he must acquaint the Captain; and he must see that they are duly served out for the Relief of the Sick.

5. He is to visit the Men under his Care twice a Day, or oftener, if Circumstances require it; he must see that his Mates do their Duty, so that none want due Attendance and Relief.

6. In Cases that are difficult, he is to advise with the Physician of the Squadron.

7. He is daily to inform the Captain of the State of his Patients.

8. When the Sick are ordered to the Hospitals, he is to send with them to the Surgeon, an Account of the Time and Manner of their being taken ill, and how they have been treated.

9. He is to be ready with his Mates and Assistants in an Engagement, having all Things at hand necessary for stopping of Blood, and dressing of Wounds.

10. He is to keep a Day-Book of his Practice, containing the Names of his Patients, their Hurts, Distempers, when taken ill, when recovered, Removal, Death, Prescriptions, and Method of Treatment.

11. From the last Book he is to form two Journals, one containing his Physical Practice, the other his Chirurgical; which are respectively to be delivered in (at the End of the Voyage) to the Physician of the Sick and Wounded, or *Greenwich Hospital*, and to the Surgeons Company, in order to be examined.

The Master at Arms, and the Corporal.

1. **NONE** to be admitted a Master at Arms, but such as are appointed by Warrant, from the *Admiralty*.

2. He is daily by turns (as the Captain shall appoint) to exercise the Petty Officers and Ship's Company, having a proper Allowance of Powder and Shot for that Purpose.

3. He is to place and relieve Centinels, to mount Guard; to see that the Arms be kept in good Order, and to observe the Directions of the Lieutenant at Arms.

4. He is to see that the Fire and Candles are put out in proper Season, and according to the Captain's Order.

5. He is to visit all Vessels coming to the Ship, and prevent the Seamen going from the Ship without Leave.

6. He is to acquaint the Officer of the Watch with all Irregularities in the Ship, which shall come to his Knowledge.

7. The Corporals are to act in Subordination to the Master at Arms, and to perform their Duty under him,

The SCHOOL-MASTER.

1. **B**EFORE he is warranted, he must be examined before the Master, Wardens, and Assistants of *Trinity House*, and from them produce a Certificate of his Qualifications; he must also produce another from Persons of known Credit, testifying his Sobriety, &c.

2. He is duly to employ his Time in instructing the Volunteers in Writing, Arithmetic, and Navigation, and in whatsoever may contribute to render them Proficients.

3. He is likewise to teach the other Youths of the Ship, according to such Orders as he shall receive from the Captain.

4. He is to be diligent in his Office, and such as are idle must be represented to the Captain for Correction.

5. He is not to receive his Wages or Allowances without a Certificate from the Captain; nor be employed again, without depositing in the *Admiralty-Office* a like Certificate.

The C O O K.

1. **H**E is to have the Charge of the Steep-Tub, and is answerable for the Meat put therein.
2. He is to see the Meat duly watered, and the Provisions carefully and cleanly boiled, and delivered to the Men according to the Practice of the Navy.
3. In stormy Weather he is to secure the Steep-Tub, that it may not be washed over-board; but if it should inevitably be lost, the Captain must certify it, and he is to make Oath to the Number of Pieces so lost, that it may be allowed in the Purser's Accounts.

Rules of Discipline and good Government.

1. **T**H E Commanders are to shew in themselves good Examples of Honour and Virtue; vigilant in inspecting the Behaviour of others, suppressing all dissolute, immoral, and disorderly Practices; and correct those who are guilty, according to the Usage of the Sea.
2. They are to see that Divine Service be performed twice a Day on Board, according to the Liturgy of the Church of England, and a Sermon on *Sundays*, unless bad Weather, &c. prevent it.
3. They are to punish Swearing, Cursing, or Blasphemy, by causing them to wear a wooden Collar, as long as they think fit, or any other shameful Badge. If he be a Commission Officer, he shall forfeit One Shilling for every Offence, and a Warrant or Inferior Officer Sixpence. A Seaman guilty of Drunkenness, shall be put in Irons till sober; but an Officer shall forfeit two Days Pay.
4. A Commander may not punish a Seaman beyond twelve Lashes on his bare Back, with a Cat of Nine-tails; but if the Fault deserve greater Punishment, he is to inform the Commander in Chief, or Secretary of the *Admiralty*, in order for the Offender's being brought to a Court-Martial; in the mean Time he may put him under Confinement.

5. A Captain is not to discharge a Commission or War-rant Officer, nor punish nor strike him; but if he be disobedient, behave ill, or unfit for Duty, he may suspend or confine him, till Information can be given as above, for a Court-Martial.

6. No Officer under the Captain is allowed to inflict Punishment; but the Commanding-Officer (in the Captain's Absence) may confine an Offender, till the Captain's Return.

7. Articles of War are to be hung up in some publick Place of the Ship, and read to the Ship's Company once a Month.

Rules for Cure of Sick and Hurt Seamen on Board their own Ships.

1. **I**N every Ship convenient Room must be made between Decks, for the Reception of the Sick or Hurt Seamen.

2. The Captain is to appoint some of the Ship's Company by Turns, to serve the Sick, Night and Day, and keep the Place clean.

3. By the Captain's Orders, the Cooper may make Buckets out of old Staves and Hoops; and the Carpenter, Cradles for the Use of the Sick, and those who have fractured Bones.

4. Whenever possible, fresh Fish is to be caught, for the Use of the Sick; and if any *Surplus*, the same shall be distributed by Turns, among the Officers and Seamen impartially, and that without any Deduction of their Allowance of Provisions.

Rules for sending Sick or Hurt Seamen out of their own Ships for Cure.

1. **N**ONE are to be sent into Hospitals, either attending the Fleet, or a-shore, but whose Distempers or Hurts are such, as may render it inconvenient to have them kept on Board their own Ships,

2. They

2. They must be sent a-shore with their Clothes, Bedding, and a Ticket, expressing their Names, Entry, and Numbers, on the Ship's Books, with the Quality of their Disease or Hurt.

3. The Captain may order the Purser to supply them with Slops, if they want such Necessaries.

4. They are to be sent a-shore under the Charge of a discreet Officer, and the Surgeon, or one of his Mates, that they may be carefully landed, and conveyed with proper Carriages, at the Expence of the Hospital.

5. A Commission Officer is to go to the Hospital twice a Week (on Muster-Days) to receive such of his Men as are recovered. He may also receive such other recovered Men (whose Ships are not in the Way) as the Agent shall desire.

6. The Captain is to receive such recovered Men as the Agent shall send to him, though the Ship be at a Distance, unless they be unserviceable; if so, must give the said Men a Certificate of his Refusal.

7. If the Captain receiving such recovered Men shall meet with the Ship they belong unto, he is to return them; but if that Ship have her full Complement, he is to enter them as a Part of his, if he wants Men, or dispose of them where they may be wanted; bearing Wages from the Time they were received from Sick Quarters.

8. Agents may supply Sick Men with necessary Clothes, if their Ship is out of the Way, (whilst in Quarters) of which he is to certify the Captain.

9. If such as are discharged from Sick Quarters, do not return on Board directly, a Query is to be put against their Names, as a Stoppage to the Payment of Wages, unless they prove that they were not able to get on Board their own Ship, and entered on some other in the Royal Navy immediately, or were discharged as unfit for Service.

10. Captains are to correspond with the Commissioners of the Sick and Wounded, concerning the State and Condition of his Sick Men.

11. Com-

11. Commanders in Chief, and the Commissioner of the Navy at the Ports where Hospitals are erected, are to visit them frequently, in order to hear Complaints, and redress Irregularities and Grievances.

12. The Captain is to take Care of the Sick Men in Foreign Parts, where there are none of His Majesty's Hospitals, or Correspondents of the Sick and Wounded Office to take Charge of them, and may draw Bills on the said Commissioners for the Expences; observing the Allowance by usual Establishment, as he will not be allowed any Exceedings.

Of the PROVISIONS.

1. **EVERY** Man to be allowed Daily Provisions, as follows, *viz.*

Sunday. One Pound of Biscuit, One Gallon of Small Beer, one Pound of Pork, and Half a Pint of Pease.

Monday. One Pound of Biscuit, one Gallon of Small Beer, one Pint of Oatmeal, two Ounces of Butter, and four Ounces of Cheese.

Tuesday. One Pound of Biscuit, one Gallon of Small Beer, and two Pounds of Beef.

Wednesday. One Pound of Biscuit, one Gallon of Small Beer, half a Pint of Pease, a Pint of Oatmeal, two Ounces of Butter, and four Ounces of Cheese.

Thursday. The same as *Sunday*.

Friday. The same as *Wednesday*.

Saturday. The same as *Tuesday*.

Hence the full Weekly Allowance *per* Man (besides fresh Fish caught, and distributed without any Deduction for the same) is, *viz.*

| | |
|--------------------------|--------------------------|
| Seven Pounds of Biscuit, | One Quart of Pease, |
| Seven Gallons of Beer, | Three Pints of Oatmeal, |
| Two Pounds of Pork. | Six Ounces of Butter, |
| Four Pounds of Beef, | Twelve Ounces of Cheese. |

2. Captains may shorten this Allowance, if Necessity require it, taking due Care that the Men be paid for the Deficiency;

iciency; nor is any Officer to have whole Allowance while the Company is at short.

3. In Foreign Voyages some of the above Species may be changed, that is, half a Pint of Brandy, Rum, or Ar-rack for a Gallon of Beer; four Pounds of Flour, some-times three Pounds, with a Pound of Raisins, or half a Pound of Currants, with half a Pound of Beef Suet pickled, are equal to a four Pound Piece of Beef, or two Pound Piece of Pork with Pease; half a Pound of Rice for a Pint of Oatmeal; a Pint of Olive Oil for a Pound of Butter, or two Pounds of *Suffolk Cheese*; two-thirds of a Pound of *Cheshire Cheese* for a Pound of *Suffolk*.

4. Beef is cut into four Pound Pieces, and Pork into two, and every Cask is to have the Contents thereof marked on the Head.

5. Every Twenty-eight Pieces of Beef cut for four Pound Pieces, taken out as they rise, and the Salt shaken off, are to weigh one hundred Pounds, *Avoirdupois*, and every fifty-six Pieces of Pork, one hundred and four Pounds.

6. If there be a want of Pork, the Captain may order three Pounds of Beef to be given out in Lieu of two Pounds of Pork.

7. One Day in every Week, there shall be issued out a Proportion of Flour and Suet in Lieu of Beef; but this is not to extend beyond four Months *Victualling* at one Time.

8. Only three Months Butter and Cheese shall be supplied for Foreign Voyages, the Remainder to be made up in Olive Oil.

9. One Tun of Iron-bound Casks for Water, and a Bundle of Wooden Hoops, is allowed for every hundred Men *per Month*, in Home Voyages; but in Foreign Voy-ages, such further Quantity as shall be thought necessary.

10. In Home Voyages, half the Proportion of Beer is to be continued in Iron-bound Casks, but in Foreign Voyages three fourths; and every Cask is to have the Contents marked on the Head in Gallons, *Winchester Measure*.

11. To prevent the buying of Casks Abroad, all Casks (in Foreign Voyages) are to be new.

12. Provision (if Necessity require it) may be supplied by

by Order of the Commander in Chief, to the Agent ; and in urgent Cases, a Captain by his Warrant may supply the same.

13. Victualling Vessels consigned to one Ship, may not be stopt by a Captain belonging to another, to take any Part of her Lading ; they are also to be unladed with Dispatch and sent away.

14. Provisions are to be sent on Board without Charge to the Purser ; and the Masters of such Vessels are to see the same delivered into the Slings of the Ship they are consigned to, by careful Men ; and must also deliver to the Captain a proper and perfect Bill of Lading.

15. If any Provisions slip out of the Slings, or are damaged through Carelessness, the Captain is to Charge the Value against the Wages of the Offender.

16. No Provisions are to be refused, until the Captain or Commanding Officer shall cause the same to be surveyed ; and if they then appear unfit for Use, he is to return them, together with the original Survey.

17. Provisions are frequently to be inspected (in Foreign Voyages) and all proper Care taken for the Preservation thereof.

18. Provisions spared to another Ship in due Form, is to be made good by a new Supply from the Agent at the next Port, upon producing the proper Order.

19. Fresh Meat is to be allowed twice a Week, (when it can be conveniently done) instead of Salt Meat, three Pounds of Mutton accounted for a four Pound Piece of Beef, or a two Pound Piece of Pork with Pease.

20. Prize Provisions may be issued to His Majesty's Ships if in Want, (and those good in their Kind) a Survey being first regularly made ; but this is not to be done whilst any of the Ship's Provisions of the same Species are remaining.

Of Short-Allowance Money.

1. **T**HE Captain is to make out Short-Allowance Lists, with the Assistance of the Purser, which must be compared with the Muster and Sick-Books, and signed by himself, the Purser, Master, and Boatswain, before they are sent to the Commissioners of the *Victualling*.

2. In

2. In Foreign-Parts, the Short-allowance Money is to be paid every three Months; and where there is no Agent Victualler, the Purser, by Warrant from the Commander in Chief, or Senior Captain, may take up Money to discharge the same, upon the best Exchange, and draw Bills upon the Commissioners of the *Victualling*.

3. The Commander in Chief is to attest the Bills, certify the Exchange, comptrol the Payment, what Cash remains in Hand, and this Surplus is to be appropriated to the next or succeeding Payment.

4. If the Ship is alone, the Captain is directed to act as a Commander in Chief, or Senior Captain.

5. The Purser, by the first Opportunity, is to send one List to the Commissioners of the *Victualling*, and by the next safe Conveyance, another.

6. The Ship's Company is to be paid their Short-Allowance in *Sterling* Value, and to have the Benefit of the Exchange.

7. The buying of Short-Allowance Money, directly or indirectly, is strictly forbid; and the Parties themselves are to be paid, without any regard to Notes, or any other Obligation whatsoever.

OF SLOP CLOTHES.

1. **W**HEN Slops are sent on Board, they must be compared with the Sample, by the Captain, Master, Purser, and Boatwain, and such as do not agree in Goodness with the Pattern, are to be rejected.

2. If the Ship fails before the Examination can be made, and then any should prove inferior in Goodness, they are to be returned, or proportional Abatements made in the Price.

3. Seamen (destitute of Necessaries) may be supplied with Slops as far a Month's Wages in Time of Press.

4. None are to receive a second Supply, until they have served full two Months, and then not exceeding ten Shillings, and so in Proportion, ten Shillings more every two Months, if they shall be in Want.

5. Slops

5. Slops are to be issued out publicly, and as the Captain is not to suffer those to be supplied who are not really in Want, so he is to oblige those who are ragged, or want Bedding, to receive such Necessaries as they want, not exceeding the Limits aforesaid.

6. The Captain is to keep a Slop book, according to Form prescribed, and before the Payment of the Ship, or on his Removal, he is to send the same to the *Comptroller of the Navy*, duly signed.

7. On the Discharge of a Man by Ticket, the Value of the Clothes he has been supplied with must be noted upon the same in Words at Length.

8. If Necessity require the buying of Clothes in Foreign Parts, the Captain must procure them of the Kinds used in the Navy, and as moderate as possible; he must also (by the first Convenience) send an Invoice of the same to the *Navy-Board*.

9. Contractors for Slops are to allow the Purser Twelve-pence in the Pound for keeping the Clothes and Accounts; but if any Disagreement arises, they may intrust their Goods with any other Officer in the Ship.

10. The Person who keeps the Slops must give Bond to the Contractors for the faithful Discharge of his Trust; nor can he receive any Wages without Certificates from them, that all Accounts are discharged.

11. All possible Care must be taken that no more Beds be demanded than are necessary, and those answerable to the Contract.

12. When a Seaman dies on Board, his Clothes, &c. may be sold by Auction, and the Produce charged against the Buyers on the Muster and Pay Books: a particular Account of the same must also be kept in the Slop-Book. The Purser is to be allowed Twelve-pence in the Pound for his Trouble, who is also to give the Executors, &c. of the deceased, a particular Account of the Clothes sold, and to whom.

13. Seamen are not permitted to bid for the Clothes of the dead Officers, that are above their Wear, nor bid for Effects

Effects above their real Value, nor purchase more than their Wages can answer, agreeable to Allowance.

14. On the Death, &c. of a Purchaser, the Slops, Clothes and Bedding remaining, are to be surveyed, and delivered to the Successor, by Inventory, in due Form.

Of PILOTAGE.

1. SHIPS bound out of the *Thames*, or from the *Nore*, the Captain is to apply to the *Navy-Board* for a Pilot, and not to employ any but such as are sent to him by the *Trinity-House*; but when a Ship is to depart from the *Downs* to the *Thames* or *Medway*, he is to employ one belonging to the Society of Pilots at *Dover*.

2. Captains are not to take Pilots unnecessarily, nor bear them longer than is necessary; and when discharged to give them Certificates.

3. When the constant Attendance of a Pilot is required on Board, he is to be so rated upon the Books, and borne within the Complement.

4. The Master or Mate (with the Captain's Consent) may act as Pilot if none can be got; and for Encouragement shall have half a Pilot's Allowance.

Of CONVOYS.

1. A Commander, appointed to convoy the Trade of His Majesty's Subjects, must give necessary and proper Instructions, in Writing, and signed by himself, to all the Masters of Merchant Ships under his Protection.

2. He is to take an exact List in proper Form, containing the Names of all the Ships and Vessels under his Convoy, and send a Copy thereof to the Secretary of the *Admiralty* before he sails.

3. He is not to receive any Gratification, nor suffer any one else in the Ship so to do.

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4. He

4. He is not to chase out of Sight of his Convoy, but be watchful to defend them from Attack or Surprize; and if distressed, to afford them all necessary Assistance.

5. If the Master of a Ship shall misbehave himself, by delaying the Convoy, abandoning the same, or disobey the established Instructions, the Commander is to report him, with a Narration of the Fact, to the Secretary of the *Admiralty*.

6. He is to carry a Top Light in the Night to prevent Separation.

7. The Commander in Chief may order his Signals to be repeated, by as many Ships of War under his Command as he shall think fit.

8. When different Convoys set sail at the same Time, or join at Sea, they are to keep Company so long as their Courses lie together: And when it thus happens, the eldest Commander of a Convoy shall command in the first Post; the next eldest in the second, and so on: Nor is any private Captain to take Umbrage hereat, as it is not intended to his Prejudice, but to preserve Order while they are together.

9. Commanders of different Convoys are to wear the Lights of their respective Posts, and repeat the Signals in Order, as is done by Flag-Officers.

10. Convoys are to sail like Divisions, and proper Signals are to be made at Separation.

11. Commanders of Convoys are to take under their Care, all such Ships of His Majesty's Friends or Allies, whose Masters shall desire it, and those ready to sail.

Of P R I Z E S.

1. **P R I Z E S** are not to be broke open, but the hatches are immediately to be spiked up, and her Lading and Furniture secured from Embezzlement, until condemned in the *Admiralty-Court*.

2. The Captain is to cause the Officers of the Prize to be examined, and three or more of the Company, who can give

give best Evidence, are to appear at the *Admiralty-Court*: Likewise all Charterparties, Bills of Lading, &c. ought to be secured, and produced in Court.

3. Prisoners, who are His Majesty's Subject, are to be strictly observed, their Names taken down in Writing, and the Circumstances of their being taken, &c.

The said Prisoners are to be examined, together with their own Witnesses, before some Magistrate; and Copies of their Declarations are to be sent to the Secretary of the *Admiralty*.

5. When a Privateer is taken, great Care must be had to secure the Ship's Papers, the Commission especially; for if no legal Commission be found, they are to be committed as Pyrates.

6. Ships of War in His Majesty's Pay, are intitled to the sole Property of all their Prizes, after legal Condemnation; but Privateers to pay One-tenth Part to the *Admiralty*.

7. Officers and Seamen belonging to Privateers are intitled to the Profit of their Prizes, according to Contract made with the Owners.

8. Judges in the *Courts of Admiralty* Abroad, unnecessarily or wilfully delaying the Trial of Captures, are liable to the Forfeiture of Five Hundred Pounds.

9. The Charges for condemning any one Prize Abroad, shall not exceed ten Pounds, in Case such Capture be under the Burthen of one hundred Tuns; nor fifteen Pounds, for that or a greater Burthen.

10. Goods embezzled on Board any Prize, the Author shall forfeit treble the Value.

11. Prizes are not exempted from the Payment of the National Customs and Duties; and all Shares of Prizes not legally demanded in three Years are appropriated to the Use of *Greenwich-Hospital*.

12. Five Pounds *per* Head Bounty-Money is allowed for taking or destroying Men of War, or Privateers, belonging to the Enemy.

13. Goods, belonging to the Subjects of *Great-Britain*, if re-taken from the Enemy, before they have been in their

Possession twenty-four Hours, the Owners are to allow One-eighth Part of the Value for Salvage; if above twenty-four Hours, and under forty-eight hours, One-fifth Part thereof; if above that, and under ninety-six Hours, One-third Part thereof; and if above that One-half, without any Deductions.

14. Offenders on Board Privateers, are to be punished as if on Board Ships of War.

15. No Privateer, &c. in *America*, is to take on Board any Servant, without the Consent of his Master; but shall duly obey the Laws of the Country.

Prizes taken by His Majesty's Ships of War, and Bounty for taking or destroying those of the Enemy, &c. are proportioned and distributed in the Manner following, viz.

1. **T**HE neat Produce of all Prizes taken by His Majesty's Ships of War, and Bounty-Money for Prisoners taken in such Prizes, is divided into Eight equal Parts; and distributed as follows:

2. To the Captain, actually on Board at the Time of taken any Prize, Three-Eighths.

3. If taken by a Ship under Command of a Flag, that Flag Officer is to have one of the said Eight Parts, and the Captain the other Two.

4. To the Captains of Marines, Land Forces, Sea-Lieutenants, and Masters, One-Eighth to be equally divided.

5. To Lieutenants and Quarter-Masters of Marines, Lieutenants, Ensigns, and Quarter-Masters of Land-Forces, Boatwain, Gunner, Purser, Carpenter, Masters, Mates, Surgeons and Chaplains, One-Eighth.

6. To the Midshipmen, Master at Arms, Serjeants of Marine, of Land-Forces, Carpenter's Mates, Boatwain's Mates, Gunner's Mates, Corporals, Yeomen of the Sheets, Cockswain, Quarter-Master, Quarter-Master's Mates, Surgeon's Mates, and Yeomen of the Powder-Room, One-Eighth.

7. To

7. To the Trumpeters, Quarter-Gunners, Carpenter's Crew, Steward, Cook, Armourer, Steward's Mate, Cook's Mate, Gunsmith, Cooper, Swabber, ordinary Trumpeter, Barber, able Seamen, ordinary Seamen, Volunteers by Warrant, and Marine, or other Soldiers (if any) Two-Eighths.

Any Officer on Board such His Majesty's Ships of War, having more Posts than one, is only intitled to the Share belonging to his superior Office, according to the Regulations aforesaid.

Commanders of Ships of War, taking any Prize, are to transmit (as soon as possible, to the Commissioners of the Navy) a true List of the Officers and Men actually on Board, or the taking of such Prize, inserting therein the Quality of every Person's Service; and this to be subscribed by themselves, and three or more of the Chief Officers on Board.

The Commissioners of the Navy, or any three or more of them, (on Condemnation of such Prize) are to examine the said List by the Ship's Muster-Book, to see their Agreement; and are to grant Certificates of the Truth of such Lists to them transmitted (if requested) to the Agents appointed by the Captures: Also are to give such Agents Lists from the Muster-Book, and to aid and assist them towards forwarding the Payments of the Shares.

The Rights and Privileges of Flag-Officers and Commanders, in Relation to Captures from our Enemies at Sea.

1. A Flag-Officer, commanding in Chief upon Service, shall have One-Eighth Part of all Prizes taken by Ships under his Command.

2. A Flag-Officer sent to command at *Jamaica*, or elsewhere, shall have no Right to any Share of Prizes taken by Ships employed there, before he arrives within the Limits of his Command.

3. That when an inferior Flag-Officer, or private Ships, are sent out to reinforce a superior Flag-Officer at *Jamaica*,

or elsewhere, the said superior Flag-Officer shall have no Right to any Share in Prizes taken by them before their Arrival, within the Limits of his Command.

4. That a Chief Flag-Officer, returning Home from *Jamaica*, or elsewhere, shall have no Share in Prizes taken by Ships left at *Jamaica*, or elsewhere, after he has got out of the Limits of his Command.

5. That if a Flag-Officer is sent to Command in the Out-Ports of this Kingdom, he shall have no Share in Prizes taken by Ships that sail from that Port, by Order from the *Admiralty*.

6. That when more Flag-Officers than one serve together, the Eighth Part of all Prizes taken by any Ships of the Fleet or Squadron, shall be divided in the following Proportion, *viz.* If there be but two Flag-Officers, the Chief shall have Two-third Parts, and the other One-third; but if the Number of Flag-Officers be more than Two, the Chief shall only have One-half, and the other Half shall be divided equally among the others.

7. That Commodores, with Captains under them, shall be esteemed as Flag-Officers, with Respect to their Right to an Eighth-part of Prizes, whether commanding in Chief, or serving under Command.

As to the Method of condemning Prizes, and the various Regulations relating to His Majesty's Ships of War and Privateers, I refer the Reader to those well calculated Acts of Parliament, made for the Security and Interest of the Nation, especially that intituled, *An Act for the better Encouragement of Seamen in His Majesty's Service, and Privateers, to annoy the Enemy.*

EXERCISE of the SMALL-ARMS.

THE Seamen, who are to perform the Exercise of the Small-arms, are to be drawn out in one Rank, with their Firelocks upon their left Shoulder, and accoutred with Swords, Bayonets, and Cartouches; and two Paper Granadoes, or Wads in Pouches, and Match hanging at the Girdle on the contrary Side.

The

The Lieutenant at Arms is to stand opposite to the Middle of the Rank, with a Firelock rested on his Left-Arm: the Master at Arms to stand near him, with a Firelock in his Hand; and the two Corporals to stand opposite to each End of the Rank, with Firelocks in their Hands.

Words of Command.

1. *Take Care.*
2. *Join your Right-hand to your Firelock.*
3. *Poise your Firelocks.*
4. *Join your Left-hand to your Firelocks.*
5. *Cock your Firelocks.*
6. *Present.*
7. *Fire.*
8. *Recover your Arms.*
9. *Half cock your Firelocks.*
10. *Handle your Cartridge.*
11. *Prime.*
12. *Shut your Pans.*
13. *Cast about to Charge.*
14. *Charge with Cartridge.*
15. *Draw your Rammers.*
16. *Shorten your Rammers.*
17. *Put them in the Barrels.*
18. *Ram down your Charge.*
19. *Recover your Rammers.*
20. *Shorten your Rammers.*
21. *Return your Rammers.*
22. *Cast off your Firelocks.*
23. *Your Right-hands under your Locks.*
24. *Poise your Firelocks.*
25. *Shoulder your Firelocks.*

EXERCISE of the BAYONET.

26. *Poise your Firelock.*
27. *Rest on your Arms.*

28. *Draw*

28. *Draw your Bayonets.*
29. *Fix your Bayonets.*
30. *Rest your Bayonets.*
31. *Charge your Bayonets Breast-high.*
32. *Push your Bayonets.*
33. *Recover your Arms.*
34. *Rest on your Arms.*
35. *Unfix your Bayonets.*
36. *Return your Bayonets.*
37. *Poise your Firelock.*
38. *Shoulder your Firelock.*

EXERCISE of the GRANADOES.

Words of Command.

39. *Join your Right-hand to your Firelocks.*
40. *Poise your Firelock.*
41. *Join your Left hands to your Firelocks.*
42. *Cock your Firelocks.*
43. *Present.*
44. *Fire.*
45. *Recover your Arms.*
46. *Handle your Slings.*
47. *Sling your Firelocks.*
48. *Handle your Granadoes.*
49. *Open your Fuze.*
50. *Guard your Fuze.*
51. *Handle your Matches.*
52. *Blow your Matches.*
53. *Fire, and throw your Granadoes.*
54. *Return your Matches.*
55. *Handle your Slings.*
56. *Poise your Firelocks.*
57. *Half-cock your Firelocks.*

EXERCISE

EXERCISE of the GREAT-GUNS.

THE Guns are to be loaded with Powder and Shot, the Water-Tubs in their Places, the Matches lighted, the Crows, Handspikes, Spunge Staves, and Rope Spunges, placed in Order by the Guns, and the Men at their Quarters.

Words of Command.

1. *Take Heed.*
2. *Silence.*
3. *Cast off the Tackles and Breechings.*
4. *Seize the Breechings.*
5. *Take out the Tampion.*
6. *Take off the Apron.*
7. *Unstop the Touch-hole.*
8. *Handle the Priming Wire.*
9. *Prick the Cartridge.*
10. *Handle the Powder-horn.*
11. *Prime.*
12. *Bruise the Priming.*
13. *Secure the Powder-horn.*
14. *Take hold of the Apron.*
15. *Cover the Vent.*
16. *Handle your Crows and Handspikes.*
17. *Point the Gun to the Object.*
18. *Lay down your Crows and Handspikes.*
19. *Take off the Apron.*
20. *Take your Match, and blow it.*
21. *Fire.*

You must take Care that the Guns do not touch the Side of the Port when you fire.

22. *Stop the Touch hole.*
23. *Handle the Spunge Staff.*
24. *Spunge the Gun.*

In *sponging* the Gun, the Sponge is to be drawn backwards and forwards two or three Times, as well as pushed home strongly, and in taking it out, turn it round two or three Times in the Gun. Observe to strike your Sponge well on the Muzzle of the Gun, to cleanse it. If you make Use of a Rope Sponge, observe the Shift Ends, and have your Rammer-head at Hand.

25. *Handle the Cartridge.*

26. *Put it into the Gun.*

You must put the Cartridge in as far as you can reach with your Arm, the lower End first, and Seam of the Cartridge downwards.

27. *Wad to your Cartridge.*

28. *Handle the Rammer.*

29. *Ram home, Wad and Cartridge.*

Observe to give two or three Strokes, to ram it well home.

30. *Unstop the Touch-hole.*

31. *Handle the Priming Wire.*

32. *Try if the Cartridge be home.*

33. *Draw the Rammer.*

34. *Shot the Gun.*

35. *Wad.*

36. *Ram home, Wad and Shot.*

37. *Draw the Rammer.*

38. *Stop the Touch-hole.*

39. *Lay on the Apron.*

40. *Run out the Gun.*

If you Exercise the Lee Guns, and it blows fresh, you must keep one Tackle hooked to the Ring-bolt on the Deck, near the Coamings, and the other Tackle hooked to the Ring, in the Train of the Carriage; but if you Exercise the Windward Guns, keep both Tackles hooked to the Ship's Side, and the Train of the Carriage.

When

When you Exercise the Lower Deck Guns, have your Port Ropes or Port Tackle Falls clear, to let fall your Ports in Case of too much Wind, and Lanyards to make them fast.

Always, after the Exercise is over, take Care to have the Deck clean swabbed, that no scattered Powder be left.

Of HOSPITAL-SHIPS.

1. IN Hospital-Ships, the Gun-Deck is entirely set a-part, for the Reception of the Sick; it is to be flush, without Cabbins or Bulkheads, except a Deal or Canvas one, for separating such as have malignant Distempers; it is to contain the necessary Cradles and Bedding; two Pair of chequered Linen Sheets are allowed to each Bed: And Scuttles must be made for the Inlets of the Air.

2. In an Hospital-Ship there is allowed a Physician, Surgeon, four Mates and six Assistants, a Servant to the Surgeon, a Baker, and four Washermen.

3. The Captain of an Hospital-Ship is to subsist the Men under Cure, out of the best and newest Provisions in the Ship, and with fresh Meat as often as may be.

4. When the Sick are so well recovered as to return to their own Ships, upon a Signal given, and a Waft, their Captain is to send a Boat for them.

The P H Y S I C I A N.

1. THE Physician is to reside in the Hospital-Ship, if any, or in such other as the Commander in Chief shall appoint.

2. He is to visit the Sick in the Ships of the Squadron or Division he belongs to, as often is needful, together with the Surgeon of the Ship.

3. He may (with the Approbation of the Admiral or Commander in Chief) inspect the Chests of the Surgeons of

of the Squadron, and destroy all such Instruments and Drugs as are unfit for Use: He may examine their Journals and Method of Practice; and if irregular, he is to report them to the Commander in Chief.

4. He is to observe the Admiral's Orders, and demand no fees from his Patients.

Of Gratuities to the Relations of Officers, and others, slain in Fight with the Enemy.

1. **T**O a Widow is allowed a full Year's Pay, according to the Post her Husband served in at his Death.

2. Orphans, each the one-third Proportion of a Widow; and *Posthumous* Children are esteemed Orphans.

3. Orphans married are not intitled to any Bounty.

4. If there be no Widow, a Mother (if a Widow, and above fifty Years of Age) is intitled to a Widow's Share.

5. The Relations of Officers of Fire-Ships are intitled to the same Bounty, as those of Officers of like Rank, in Fourth Rates.

6. Captains are to set down the Names of the Slain at the End of the Muster-Books, and on what Occasion.

7. This Bounty extends to those who are slain in Tenders, in Boats or on Shore, as well to those on Board the Ships; also to those that are slain in Fight with Pyrates, or in an Encounter with the Ships of Friends by Mistake; also those who die of their Wounds after Battle, are all esteemed as Persons slain.

Of Gratuities to Officers wounded in Fight with the Enemy, and to Officers hurt in the Service.

1. **I**F an Officer receives a Wound that shall occasion the Loss of an Eye or Limb, or the total Loss of the Use of a Limb; or that (upon Certificate from the Surgeons Company in London) shall be in Effect of equal Prejudice to the Habit of the Body, with the Loss of a Limb, he shall

shall receive one full Year's Pay, and shall be allowed such Expences relating to the Cure (if not performed at his Majesty's Expence) as shall be certified reasonable by the said Company; he shall also continue in Pay during the Time of his Cure.

2. With respect to the Year's Gratuity, Ships under the Third Rate are to be esteemed as such.

3. Volunteers are also intitled to the same Bounty as Lieutenants.

4. If the Wounds received do not amount to the Loss of a Limb, nor are of equal Prejudice to the Body, the Charges of Cure are only allowed, and the Continuance of Pay as aforesaid.

5. Under the Term *Wounded in Fight*, is comprehended all the several Cases relating to those *slain in Fight*; and those so wounded are paid the Gratuity, &c. on Application to the *Navy-Board*.

6. Inferior Officers, or Seamen hurt, maimed or disabled in the Service, by Certificate signed by the Captain, Lieutenant, Master, Surgeon, and one or more Warrant Officers of the Ship, expressing the Nature of the Hurt, &c. are intitled to the Benefit of the Chest at *Chatham*, according to the Rules and Constitutions thereof.

Of Pensions to superannuated Officers.

1. **BOATSWAINS**, Gunners, Carpenters, Purfers, and Cooks (whose Employments are constant) must serve full fifteen Years; Masters and Surgeons (whose Employments are not constant) eight Years in their respective Offices, before they are intitled to Superannuation.

2. Officers applying for Superannuation are to be examined by the Physicians of the Sick and Wounded. (or in Default of that Commission, by the Physician of *Greenwich-Hospital*) in Conjunction with the Surgeons Company, who are to report their Opinion (in Writing) of their Incapacity to serve his Majesty.

3. Officers, whose Employments are constant, being admitted to Superannuation, receive an annual Pension,

equal to their Pay in the Ship of the highest Rate they have served in,

4. The Pensions of Masters are equal to half their Pay; and Surgeons are allowed the same Pensions as Masters of equal Rates.

5. Commission-Officers worn out, or disabled in the Service, are considered as their Cases may deserve, and as his Majesty shall think fit,

An Extract of some Instructions relating to the NAVY.

1. **V**olunteers repairing on Board within Limits prescribed, are intitled to Conduct-Money; to Wages from the Day of their Entry, to Victuals from the Time of their Appearance, and to an Advance of two Months Wages, with Bounty-Money (if any offered) before the Ship proceeds to Sea.

2. At their coming on Board, they may be supplied with Slop Clothes, but the Value thereof must be deducted out of the said two Months Advance and Bounty-Money.

3. It is to be understood, that Seamen not turned over by Order of *Admiralty*, but shall voluntarily go, or entering in Exchange for others discharged at their own Request, are not intitled to any Advance Wages.

4. Two Months Wages in six are allowed to be paid to inferior Officers and Seamen, if the Ship is in any Port of *Great-Britain*, or on the Coasts thereof, and not under Orders to be paid off.

5. But if the Ship is in any Foreign Parts, the same may be paid to the Attornies of such as shall desire it; and this is to be done every six Months, while the Ship is in Commission.

6. Notwithstanding what is above observed in regard to inferior Officers and Seamen, it is directed, that if the Ship shall be in any Port of *Great-Britain*, or on the said Coasts, at the End of eighteen Months, the whole Ship's Company shall receive twelve Months Pay, including the Advance, if any; and the same is to be repeated every eighteen Months from last Clearance.

7. Second Masters, Surgeon's Mates, Cook, Armourer, Gunsmith, Schoolmaster, Master at Arms, Corporal and Sailmaker, are termed inferior Officers, and all others who have not Commission or Warrant.

8. When inferior Officers or Seamen are turned over from one Ship to another, the Captain must not rate them in worse Quality than they served in the Ship removed from; those also are intitled to two Months Wages Advance; but if there be more inferior Officers, than the Establishment of the Ship allows, the Secretary of the *Admiralty* must be therewith acquainted.

9. A Captain, ordered to turn over his Men, must deliver a List of their Names and Qualities to the Captain they removed under; on such Removal they are intitled to their Wages, as well as to the two Months Wages Advance.

10. If a Ship may by Accident be disabled, so that her whole Ship's Company is removed into another, this is not esteemed a turning over.

11. Volunteer Seamen are to be discharged, on procuring Preferment in any other of His Majesty's Ships, the Captain receiving him, giving a good Man in his Room.

12. No Letter of Attorney is valid, unless made revocable, and attested by the Captain or Commander, and another of the signing Officers of the Ship to which they belong; or by the Clerk of the Cheque of some of the Dock-Yards; or by the Mayor, or chief Magistrate of some Corporation.

13. Captains are to discourage Seamen from selling their Wages; and not to attest Letters of Attorney, if the same appear granted in Consideration of Money given for the Purchase of Wages.

14. Tickets of deceased Seamen are to be sent to the *Navy-Board* by every safe Conveyance, so that the Wages may be paid to the Executors, &c. of the Deceased.

15. Seamen unavoidably distressed in Foreign Parts, on proper Application, are to be received on Board any of his Majesty's Ships; and the Captain is to bear as many as come within his Complement, for Wages and Victuals, and the rest for Victuals only: These Supernumeraries he is to put on Board any other of his Majesty's Ships he may

meet with that are short of their Complement; but if he meet with none, they are then to be set on Shore at any Port of *Great-Britain* he is bound to.

How to prepare a Ship for a close FIGHT.

1. **BULKHEADS** are the Bulwarks of Close-quarters, and are commonly assaulted with Vigour by the Enemy; therefore they ought to be substantial; at least Proof against a Musket-Ball, as well to defend the Shot of their own Party, as those of the Enemy; for when discharged out of the Steerage at an Enemy on the Main-Deck, they frequently fly against the Bulkhead of the Forecastle, or out of the Forecastle against the Bulkhead of the Steerage. But if they be not built Proof, they may be lined with Cork, and over that broad Paunches or Mats wrought with the Strands of an old Hawser; and rather these, because if a Chance shot from a Cannon (when an Enemy lies thwart your Hawse or under your Counter) happen to pierce through the Bulkheads, these will not splinter; and if the Wood should splinter, the Splinters cannot come through the Lining.

2. Standing Cabbins, built half in the Steerage, &c. and half upon Deck, as they are seldom thicker than a Deal, are dangerous; for they not only give the Enemy an easy Entrance into the Close-quarters, but endanger the Men by Random-shot from the opposite Quarters; but if that Part upon Deck be Musquet Proof, they are of Use to flank the Bulkheads, especially that of the Steerage, when the Forecastle happens to be taken; or to prevent the Enemy's placing Engines of War against them, when the Smoke covers them from the Sight of those in the opposite Quarters.

3. Decks jutting out far beyond the Bulkheads are inconvenient; they cover the Enemy upon the Rigging while they cut down the Yards; or if that be prevented by the Top-chains, they may cut the sails from the Yards: The Round-house perhaps may be thought a sufficient Flanker for the Rigging afore, and on the Main-mast; but it also may be thought as necessary to have as many Flankers to a

Place

Place as possible: And they in the Round-house may have their Hands full, while those in the Steerage are at Leisure to clear the Rigging, besides it may be convenient for them to quit their Quarters.

4. If the Bulkhead of the great Cabbin be well fortified, it may be of singular Use; for though the Enemy may force the Steerage, yet when they unexpectedly meet with another Barricade, and from thence a warm Reception by the Small Arms, they will be thrown into great Confusion, and a Cannon ready loaded with Case-shot will do great Execution; but if this should not altogether answer the Purpose, it will oblige the Enemy to pay the dearer for their Conquest: For the Steerage may hold out the longer, and the Men will be the bolder in defending it, knowing they have a Place to retire unto, and where they may capitulate for good Quarter at the last Extremity.

5. Close-quarters are generally illuminated from aloft, but the Leaves or Shutters belonging thereto must be as strong as the Bulkheads; and those Leaves made to swing upon Hinges, and clasp up against the Deck, may perhaps be most convenient.

6. Scores in the Leaves of the Forecastle, ought to be so cut for the Cables, as to prevent Danger from the Anchors, if the Stoppers and Shank-painters should be cut or shot; which may be done, if the Score be cut about the Middle of the Leaf, in that Side next the Deck when shur, and as high as the Windlafs; and when the Leaves are down and the Cables in Pieces may be made to fit the vacant Places and Bar, so that the Enemy can have no Advantage. The Score being thus cut, a Stopper may be clapt on below, and all apparent Danger prevented. Another advantage arises, for now you may let go the Anchor, without opening the Leaves (when Occasion requires) by opening one of the Bow-Ports, and cutting away the Stopper and Shank-painter; and so by bringing up upon a Leeward Tide, may save your Ship without fighting. There is still another Advantage, that is, when a Ship is riding upon the Coast in the Night, the Leaf may be let down and the Close-quarters secure against any Surprize the Enemy shall attempt.

7. A Ship lying thwart Hawse, and firing in at the Stern, is of dangerous Consequence; each Shot passing the great Cabbin, Steerage and Forecastle, rakes the Ship, and beats down the Bulkhead: Where'ore it would be very necessary to have (both at the Bow and Counter) Stantions, two Feet Distance from each other, and between these and the Bow or Counter, Old Junk, Plats, Swabs, Beds, &c. leaving Room only to traverse the Chace Guns: Ships thus fortified make the men keep their Posts with Courage, manage well their Chace Guns with Partridge; and thereby make great Havock among the Enemy.

8. The Decks are in more Danger of being cut up, than exposed to the Enemy's Cannon, wherefore Bars of Iron may be let into each Plank to strengthen them; or if these make the Plank Iron sick, you may raise Coamings upon the Quarter-deck almost as far aft as the Mizzen, and those may be laid with Gratings, or Hatches, if short of Hands; they ought to be pretty thick; the Coamings about a Foot high, and made of good Oak. The same Care must be taken of the Deck over the Forecastle, and if over the Poop it would not be amiss; an Hatch there eight Square, and about five feet Diameter, would be of great Importance in an Engagement when the Smoke is thick, so that the Men cannot see the Enemy cutting up their Decks from the Quarters designed to flank the Place. They will also be of singular Use to flank the Rigging.

9. Leaves, Musquet-Proof, must be fitted for the great Cabbin and Round-house Windows, and it is better if they are made to swing upon Hinges; for when the Enemy is on Board the Quarter, they may toss in Hand Granadoes, &c. so as to destroy or drive the Men out of those Quarters.

10. Loop-holes must be made to these Bulk-heads, Sides, Stern, and Coamings, to put out Musquets, in Order to clear the Deck, Quarters, and Chains; and these ought to have their Diameter less than an Hand-Granadoe, lest the Enemy find Means to toss those destructive Engines through them, which may do more Mischief than their Cannon or Small Arms. In each Bulkhead it is necessary to have two Tires; the uppermost about four Foot and an Half high,
and

and the lowermost two Foot and an Half, that if the Enemy lurk close to the Bulkheads, designing to wedge your Ports, or cut your Bulkheads, when the Decks are full of Smoke, or the Forecastle taken, you may force them away. Some of the upper Tire should be cut sloping to flank the Rigging, and others next the Side obliquely to command the Wake of the Capston or Main-mast out of the Steerage, and Mizzen Mast out of the Round house: And it is necessary to have a small Hole cut out of the Forecastle to command the Fore-mast; for if once your Enemy finds Covert, he there views the Posture of your Ship, and does more Prejudice than can be readily imagined. Some should be cut in the Quarters, to fire at an Enemy along-side; if the Ship be lofty, these should be cut sloping to the Water; if low, cut them parallel, or rather elevated. In order to flank the Deck and Rigging, some should be cut in the Coamings also; and those that direct thwart the Ship, should be so much sloping as to command the Yard, that the Enemy cut not the Gaskets or Robins. You must also cut some in the Leaves of the Great Cabbins, Round-house Windows, and Fore-peak, some sloping and some parallel, as some well-regulated Judgment shall direct.

11. If the Number of Loop-holes exceed the Number of Men, it is very necessary to have Plates of Iron to slide before those that are least useful or most suspected. Those in the Leaves of the great Cabbins need none; nor the lower Tire in the Bulkhead, which will serve to let in Light enough to see to charge a Musquet; if not, Candles must be supplied.

12. But instead of these Iron Plates it will be much preferable to have Rolls fitted in the Bulkheads, Quarters, and Coamings, after the Manner of that in the Steerage for the Whipstaff, and through these let the Loop-holes be cut; and when there is no Occasion for them, they may be turned, the Holes covered, the Charge of Plate spared, and the Danger that may happen by open Loop-holes prevented: Into one of these Rolls a Man may put his Musquet, turn it about till he spies an Enemy, discharge his Piece, and turn the Roll again without damage, though the Enemy be before the

the Hole, and ready to fire into your Quarters ; which he would easily do, if he should spy you lifting up the Plate before-mentioned.

The Situation of these Rolls are different, and may be disposed as the Master shall think fit ; but for the most Part, those in the upper Tire of the Bulkheads, and thwart Pieces of the Coaming, must be parallel to the Deck, that they may be turned aloft to flank the Rigging : And those in the lower Tire of the Bulkheads, and in the Parts of the Coamings that go fore and aft, must stand perpendicular to the Decks ; the Holes in the Roll must be cut long, that a Musquet may be mounted in those that stand perpendicular, and traversed from Side to Side in those that are parallel : Loop-holes must be cut large, else you cannot traverse your Musquet, and if too large, they are exposed to Granadoes, both which are remedied by Rolls.

13. A ship that carries but few Guns, requires the Ports to be cut to the greatest Advantage, and may be as follows, viz. let the Foremast Ports on each Side in the Steerage and Round-house, and aftermost in the Forecastle be cut as near the Bulkheads as possible, leaving but just Room to traverse the Guns ; likewise let a Port on each Side be cut through these Bulkheads, that the Guns may easily be turned from the Sides to the Bulkheads : Also in the great Cabin and Round-house on each Side, let a Port be cut near the Counter ; let two also be cut out of the great Cabin, and as many out of the Round-house through the Stern, that your aftermost Guns may with Expedition be made your Stern Chace : Thus the Stern of a Ship of eight Guns may be made of equal Force with her Broadside. Then let your foremost Ports in the Forecastle be cut close forward, that they may be serviceable if a Privateer be either along-side or thwart your Fore-foot.

14. The Ports must turn free upon the Hinges, as thick and strong as may be, with good Port Ropes, in which must be put between Strands a Piece of Stick, to keep the Port, when up, from coming too near the Side, that it may not catch.

15. But besides these Ports without, it is absolutely necessary to have some defensive Ports within, for should a

Port

Port be shot away, and the Enemy board you, it may prove fatal. They are also useful whilst the Enemy is on Board your Ship; for if a Port be occasionally hauled up, an Enemy (if at Hand) may wedge it, and with Hand-Granadoes bring those Quarters to the last Extremity. Besides when the Enemy is on Board, the Fight dubious, and your Ports jammed, fire them away into the Enemy with a Bag of Partridge, and a doubled Shot; and then when you please you may discharge your Cannon, and down with your defensive Ports, which will keep out Hand-Granadoes, &c.

16. In fallying, the Men may be forced to retreat into their Quarters, with the Enemy at their Heels, so that they cannot shut the Doors; it would therefore be necessary to have a Door in Manner of a Portcullis, to fall down and catch in two Snatches at the Step fixt with Springs; and this kind of Door may be made of Wood, lined next the Deck with Tin, stuck full of sharp Nails, and a ponderous Lump of Lead at the lower End, to make it fall with Violence; it may be so contrived, that the proper Doors may shut over it.

17. The Forecastle flanks the Round-house; if that therefore be wanting, it is plain the Round-house is exposed (after the Granadoes, &c. are sprung) defenceless to the Enemy: Some Provision then ought to be made to secure so important a Place; and which (perhaps) cannot be better flanked, than by high Coamings, as directed by Art 8 and 10. If the Round-house be wanting, and the Ship steer close, the Companion ought to be Musquet-Proof, and fenced against Pole-Axes with Iron Bars: This with Loop-holes will command the Quarter Deck, if there be no Forecastle, or when that happens to be taken, yet for all this Coamings ought not to be neglected. A Ship that hath no Forecastle, ought to have Coamings to the Fore-hatches, and Loop-holes cut in them, to command the Wake of the Boat, which will cover the Enemy from Aft, while they cut up the Deck: In a Vessel well loaded, cutting up the Deck before, will be of no Advantage to them; but if light they may come aft, and force or blow up your Quarters.

18. Having

18. Having thus fixt the close Quarters, it is necessary that the Men have Convenience of Communication one with another, that if Occasion require they may dispatch mutual Assistance; or if one of their Quarters be forced, those may retire to that which holds out, thereby to assist and maintain the Fight, or capitulate for Quarters, and this may be done by Scuttles cut through the Decks; but it has been objected, that Scuttles (especially that out of the Forecastle) are Encouragements for Cowardice; that having no such Convenience, the Men are more resolute, because they must fight, die, or be taken. Now if they must fight or die, it is highly unreasonable, and as cruel to leave Men to be cut in Pieces, when they are able to defend their Posts no longer, and in this Case the Fate of the Hero and the Coward is alike; and if it is to Fight or be taken, the Gallant will hold out to the last, while the Coward (if the Danger runs high) surrenders as soon as Quarters are offered; and now if there be a Scuttle, the Menace of the Enemy will make the less Impression on their Minds, and they will stand out the longer, when they know they can retire from the Fury of the Enemy, in Case they force their Quarters: Mr. *Park* closes Section 21, Part 1, thus: "In short, it will be as great a Blemish in a Commander's Politics, to leave Cowards without a Scuttle, as it will be Ingratitude to leave gallant Men to be cut to Pieces." Hence it appears that Scuttles are absolutely necessary, and may be cut after the following Manner. 1st, Let one be cut out of the Round-house into the great Cabbins. 2d, One out of the great Cabbins into the Gun-room. 3d, One out of the Forecastle into the lower Deck; and if the Ship be full, let a Trench be made fore and aft, as Necessity requires; but if she be light, the Men must remain near the Scuttle to defend it, after they have left the Forecastle: And though the Place be open to an Enemy, when down, yet being dark to those that come out of the Air, the Defendants may take them off at Pleasure before they recover their Sight. However, if any Danger threaten, by being open to the Enemy, a Bulkhead may be run up from Side to Side so near the Scuttle, that with a Javelin or Half-

pike

pike they may destroy each Man as he comes down, besides large Loop holes may be made, and good Store of Hand-Granadoes left to toss through them, if the Enemy press down fast: And in Order to prevent the Enemy from cutting up the Decks over your Heads, Loop-holes through the Coamings of the Fore-hatches are sufficient.

19. To the managing the Sails, much is owing for a Victory, or an honourable Retreat: Now in a Ship well manned, they may be able to keep their Decks, receive the Enemy upon the Edge of their Cutlasses, and need not alter their running Rigging: But for Ships indifferently manned, it is necessary to get their Rigging; that is, the Braces, Bow-Lines, Tacks, Sheets, Fore-clue-garnets) into close Quarters, as well for Command of the Sails as Preservation of the Men; and then it is evident the Ship may be tacked, if the Clues of the Courses run clear of the Shrouds, the only Thing in Danger of coming foul. To prevent this, the Clue garnet-blocks may be carried further out, and when the Ship is going to tack, she may be hauled tort, which will make them traverse clear of the Shrouds, and when the Yard is about they may be let go, and the Tacks get down as close as possible. The only Way to accomplish this, is to reeve the Fore-tacks in at the Hawse; the Fore-bow-lines, and Fore-top-bow-lines, through the Fore-peak; the Fore-braces, and Fore-top-sail-braces, through the Gratings over the Hearth; and the Fore-clue-garnet-fall in at the Foremost Port, or rather in at a Loop-hole in the Chains, it being first reeved through a Block seized to the chains: The Main-bow-lines, Main-top bow-lines and Main-tacks must come into the Forecastle, which latter must come in through a Loop-hole in the Fore-chains. The Main-top-sail-braces, Main-sheets, Mizzen-top-sail bow-lines and Braces, with the Cross-jack-braces must come into the Steerage: The Fore-sheet may be brought either into the Forecastle or Steerage, and the Main-braces by the Main-top-bow-line, that the Men may brace about the Yard, and be at Hand to get the Tacks Abroad, &c. upon the Forecastle; but because half the Men or more are in the Quarters abaft, it will be necessary for both to be in the Steerage,

Steerage, the Braces coming through a Hole close aft in the Quarter, and the Sheet more forward; in both the Holes must be Sheaves, that they may run briskly and free. But it may be objected, that if an Enemy be suspected to be coming on Board, the Courses ought to be furled in Time; for the Enemy's Men upon the Fore shrouds are by the Main-sail covered from Abaft; likewise the same Sails cover them, mounting the Mizzen-shrouds from the Forecastle: And if they get upon the Yards, and cut the Robins and Earings, the Sails falling down will cover them while they cut the Decks up, &c. In Answer hereunto, this Conduct is not adviseable in little Wind and smooth Water; though then so much of your Running Rigging as is necessary for the managing your Top-sails, ought to be taken into Close-Quarters, to veer your Ship, if the Enemy persist and Board you.

But when the Winds blow fresh, and there is a Swell, by crowding you then render it difficult, if not impracticable for the Enemy to Board you, and at such a Time tacking may be necessary: By the Way, have great Regard to the Masts and Yards. It perhaps may not be amiss, if the Master practised (when Occasion serves) to tack his Ship in close Quarters, when he has Sea-room enough, in Order to render his Men more dextrous against a real Occasion.

The CONDUCT to be used in CHACING.

I. A Merchant-Ship is to make the best of his Way from an Enemy.

THOUGH a Ship be well supplied with, and fitted for a close Fight, yet a Merchant Commander is not obliged to fight, if he can with Safety shun it: For a Merchant Ship is not sent to Sea to annoy the Enemy, by venturing his Cargo; but to increase the Trade of the Nation, the Public Revenues, and employ the Poor; therefore whenever he can depart from an Enemy without the Hazard of a Battle,

it is Prudence so to do; and if he should be chased, he ought to embrace every Advantage that can be taken, either by Wind or Tide.

II. *The Enemy being in Wind's Eye, it is best for a Three Mast Vessel to sail Quātering.*

THE Ship chased having the Liberty of chusing her Course, may steer how she pleases; but the Master in making his Choice, is to pitch upon that which answers best, which is to prolong the Time that the Night may cover his Escape, or he may meet with a Friend to rescue him; and the best Way to effect this, is to sail right before the Wind, or Quātering, according as the Vessel is rigged. If a Ship has three Masts it is best to sail Quātering, because experimentally it is found, the swiftest Motion a Ship can make through the Sea, is, when all the Sails draw, and if the Enemy is obliged to go right before the Wind to come up with the Chace, then he can only have Part of his Sails drawing, which is not above half the Canvas; while the Chace quātering has all hers.

But suppose the Enemy sails Quātering also? Well, then he will keep a parallel Course with the Chace; or rather his Course will incline to the Windward, because his Yards being (as most Privateers are) squarer than Merchantmen, he must bring the Wind more Points upon the Quarter, that all the Sails may draw; and if he pursues this Method, he must at last bear down to the Leeward before the Wind into her Wake.

III. *A Ketch sails best right before the Wind.*

THE Reason is, because the Mast of a Ketch has a greater Proportion to her Hull than the Main-mast of a Three Mast Vessel; the same may be said of the Squariness of their Sails; and the Main-sail and Main-top-sail being larger in Proportion, gives her more Way through the Sea.

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IV. The

IV. The Enemy to Windward, what Conduct the Chace must use to get to Windward.

SUPPOSE the Enemy directly to Windward, the Chace must then first sail Quartering ; if the Enemy bear down before the Wind, then she may gradually bring the Wind forward, 'till it is upon the Beam ; and if the Enemy still bears for your Wake, luff as he gains it, 'till you are hauled sharp, and he in your Wake ; then make the best of your Way to Windward. Here you must be cautious of Tacking ; for if you be but a little Weatherly, and you stand with your Larboard, and he with the Starboard Tacks Aboard, you will give him the Opportunity, if not of Weathering, at least of getting within Shot of you ; and the Consequence of that may be the Loss of a Yard or Mast.

But if the Enemy steer Quartering, or inclining to Windward of the Chace, then if he out-fails you, and is far upon the Quarter, bear away and get the Wake upon the other Quarter ; if the Enemy keep his Course designing for your Wake, gradually bring too, and try if you can get to the Windward upon that Tack ; perhaps some will think it best (perceiving such Conduct in the Enemy) to sail Quartering, or before the Wind, because it is to be supposed the Enemy will bring the Wind upon the other Quarter when you do ; if he should not, you may perhaps be favoured with an Opportunity of getting to Windward.

V. The Chace to Windward, and ply to Windward.

UNDER this Head, the Chace must be considered directly in the Wind's Eye, or but some Points to the Windward.

If the Chace and Enemy be under the first Position, and the Chace stand away with her Larboard Tacks on Board close hauled, it is evident that the Enemy cannot lie in her Wake ; and it may be assured that this Conduct will be to keep a parallel Course, or sail with his contrary Tacks on Board

Board 'till he fetch her Wake. Under both these Courses we will consider him steering for the Chace.

1. Suppose at first Sight of the Enemy, the Chace cling close upon a Wind, with her Larboard Tacks on Board. Then suppose the Enemy steer away with his Starboard Tacks on Board, designing to fetch the Chace's Wake. In this Case Tacking signifies nothing, there being Sea-Room enough and no Currents; for imagine the Ship to sail as fast upon one Tack as upon the other, she will not make the Chace longer, but rather shorten it: For each Time a Ship tacks, she loses so much Way as she will run Knots in the Time of Tacking; besides a Ship does not recover her Way as soon as she is about. In not Tacking, this Disadvantage is not only removed, but you are in the Way of several considerable Advantages; for should a Calm happen, the Chace is so much the farther from the Enemy, if the Wind should come about after it; likewise if the Weather should prove thick, or Night come on, she would lose Sight of him the sooner. Lastly, just as the Enemy is in the Chace's Wake, she may bear away a Point from the Wind; this may not be presently minded by the Enemy, who will keep his Loof, and so the Chace will encrease her Distance; and should the Enemy perceive it, he will not be much better for the Discovery, because, being to Leeward of the Chace's Wake, he must sail close hauled to fetch her, while she steers a Point from the Wind.

2. But should the Enemy keep a parallel Course with the Chace, then the Master's Conduct will be to tack immediately, that he may be in the way of the above-mentioned Advantages; and if the Enemy tacks as soon as the Chace is about, and fetches upon her, then you must prepare for a Fight, and discharge your Duty to your Country.

VI. *The Enemy some Points to Leeward.*

IF the Chace be some Points to Windward of the Enemy, suppose five; if the Chace under this Position designs to ply to Windward, she may sail upon either Tack, there is

no Difference, unless she sail better on one Tack than the other, which get on Board.

VII. *The Enemy to Leeward, the Conduct the Chace must use to get to Leeward.*

IF the Chace designs to bear away Quartering, thinking by this Means to wrong the Enemy, it ought not to be done, 'till the Enemy has the Chace's Wake; for if the Helm be a Weather, before the Enemy is in your Wake, he will stand thwart your Fore-foot, and be the sooner within Cannon Shot; and when the Enemy is in your Wake, if you bear down at once, he may be within Shot before you get to Leeward; therefore it is (probably) the best Conduct not to bear away Quartering till you have wheedled the Enemy into your Wake, with the Wind upon the Beam.

VIII. *The Enemy with Chace making a Right-Angle with the Wind.*

Captain Robert Park, (to whose ingenious Performance I am obliged for this Part of the *Vade-Mecum*,) in Page 84, Sect. 9, demonstrates the Disadvantages that will attend the Chace in loosing and bearing away before the Wind; and esteems it the best Conduct to sail Quartering with all her Canvas just drawing; for then if the Enemy sail Quartering with all his Canvas drawing he keeps a parallel Course with the Chace, and must at length sail with the Wind upon the Beam, to come close with the Chace; or else the Enemy must sail with the Wind upon the Beam, to fetch the Wake of the Chace, which will prolong Time; for the Chace increasing in her Motion before the Enemy is in her Wake, will gain considerably; but for Coasters that have not Sea-Room enough, it (perhaps) may not be so necessary to make use of the Advantage above-mentioned.

IX. *The Enemy in the Wind's Eye, and a Current setting to Leeward.*

IT is diligently to be considered on what Point of the Compass the Tide sets, and whether the Enemy be to Windward or Leeward of the Chace; if he happens to be directly in the Wind's Eye, and the Tide set to Leeward, the Chace may steer away before the Wind and Tide, or Quartering, as Experience shall direct him for the safest Course. It is certain that by sailing Quartering, the Ship receives Advantage from all her Sails drawing, also from the Tide being upon her Quarter; but whether the Advantage arising from all her Sails drawing, be greater than the Advantage of going right before the Tide, is a Question that must depend upon Circumstances.

Concerning the Motion of a Ship in a Current, three Things are to be considered: First, the apparent Motion of a Ship, caused only by the Wind or Oars, which Mr. *Norwood* calls the Simple Motion: Secondly, the Motion of the Current; and lastly, the Compound Motion made by the two former, which may be thus explained: Suppose a Boat about to row across a River three Miles over, and it would take her an Hour to cross it, by Rowing, Sailing, &c. Also suppose the Tide in the River to run equally two Miles an Hour. It is plain, if the Boat be no Way affected by Oars, Wind, &c. she would be carried two Miles down the River, by the Tide, in an Hour. It is also plain, if there were no Tide, the Boat could row directly over in an Hour. Again, suppose the Tide runs, and the River lies directly North, and the Boat steers directly East, or keeps her Head and Stern perpendicular to the Banks of the River, it is evident she would be proportionably affected by the Tide and Force that carries her over, and would land just two Miles lower than the opposite Place she set out from.

It may be observed, that if the Wind blows with a Tide or Current, it accelerates it; but if it blows against the Tide, it retards it,

X. The Wind and Tide making an Angle, and the Enemy to Windward.

THE Enemy directly in the Wind's Eye, and the Tide making an Angle with the Wind, and running to Leeward.

Under this Position, it is indisputably the best of the Chace's Conduct to sail Quartering with the Tide right a-Stern, if the Angle be but three Points or thereabouts; but when it is more than six Points, it is the Chace's best Conduct to keep the Tide upon the Lee-quarter, and thus the Enemy can have no Advantage; for if he bears down afore the Wind for her Wake, he will have the Tide farther forward, and so the Chace will receive the greatest Benefit from that, and if he stands away Quartering, at last he must bear down before the Wind to gain her Wake.

XI. The Wind making a Right-angle with the Tide, and the Enemy to Windward.

IF the Wind blows cross the Tide, and the Enemy directly in the Wind's Eye, and the Chace designs to sail to Leeward, the best Course she can steer is with the Wind upon one Quarter, and the Tide upon the other; for if the Tide be brought upon the Weather-Bow, the Ship will not go so fast through the Water as when it is upon the Lee-quarter; and should the Enemy come before the Wind into the Chace's Wake, while she is sailing Quartering with the Tide upon her Bow, he would not receive so great a Check from the Tide upon his Beam, as the other does from it upon the Bow; and so consequently he will be in her Wake sooner; neither will the Enemy receive such Advantage from the Tide upon his Beam, as the Chace shall from it, upon her Quarter; and therefore he will be longer in gaining her Wake, when the Chace sails with the Wind and Tide upon different Quarters.

XII. Under the last Position, the Chace attempting to get to Windward.

IF the Chace in the Position, mentioned in the last Article, would go to Windward, she must first go Quartering

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tering with the Tide before the Beam, until the Enemy is in her Wake; then she may bring the Wind a Point or two more forward, and so luff at Discretion, till she can haul close upon a Bow-line, and by Degrees drill the Enemy wholly to the Leeward: Then, if the Tide run hot, he may, as soon as she is in the Eye of the Tide, let drop her Anchor, and ride till the Tide be done, or the Enemy gone. The Reason for bringing the Wind upon this Quarter is because you can gain the Tide of your Enemy; for should you attempt it the other Way, the Enemy may come down before the Tide (with the Wind upon the Beam) upon you while you are loosing. But once for all (says Mr Park) I esteem it high Imprudence for a Master to attempt getting to Windward of the Enemy, unless his Ship sails indifferently well large, and better by far upon a Bow-line.

XIII. *The Chace and Enemy making a Right angle with the Wind, and the Tide running directly to Leeward.*

IF a Ship goes faster with the Wind and Tide upon the Quarter than before the Wind and Tide, it is best sailing Quartering; but if she sails faster before the Wind and Tide, than with both upon the Quarter, it is then best sailing between two Sheets: For if the Chace sail away before the Wind, the Enemy must keep a parallel Course, or steer Quartering, or with the Wind just abast the Beam, for her Wake, which will prolong Time; if sailing before the Wind and Tide be the swiftest Motion: But if sailing with the Wind and Tide upon the Quarter be the swiftest Motion, and the Chace sails so, the Enemy must gain her Wake before she can sail so, which will prolong Time; or the Enemy must steer a parallel Course, and at last alter that to come up with her.

But it not being certain which of these is the best Conduct, the Chace had better sail away with the Wind upon the Beam; and it may (perhaps) be found a Piece of Imprudence to haul sharp.

XIV. *Suppose*

XIV. *Suppose the Tide sets from the Chace to the Enemy and the Wind.*

IN this Case, as well as in several others, the Conduct of the Enemy turns the Methods which the Chace designs for her Advantage, to her Ruin; therefore, before the Master tries to take any Advantage, he must weigh every Circumstance, and consider whether any Thing of bad Consequence may offer by an Alteration of the Enemy's Conduct.

Suppose the Wind blows due South, the Tide sets due East, and the Chace due West from the Enemy, could then the Chace get four Points to Windward of the Enemy, she might give him the Slip, by prolonging the Chace; but in performing that, she may be made a Prize before it is accomplished; for if the Chace bring too, and steer close hauled North Westerly, within $5\frac{1}{2}$ Points of the Wind, the Enemy may also steer North Westerly Lasking. This Conduct is also attended with another Disadvantage, for she receives the Tide upon her Lee-bow, which holds her up to the Windward, and though it makes her gain Weatherly, yet it shortens her Compound-Motion, whereas the Enemy steering Lasking as above, with a flown Sheet, does not receive such a Check from the Tide as the Chace, and consequently shortens the Way; for receiving the Tide farther forward than the Chace, and the Wind more aft, she goes faster through the Water. This may be evident by putting a Wedge in the Water, and fastening a String to the acute End, put the Wedge in a pretty strong Tide-way, and a small Piece of Twine will ride it; make fast another Piece of Twine to the great End of the Wedge, and draw it sloping upon the Stream, you will find the Stream sensibly increase; and the more sloping it comes, the more the Strain will increase, 'till it break the Twine, or come thwart the Stream. The Application is plain, for the Chace receives more of the Tide upon her Broad-side than the Enemy, and consequently is more pressed towards the North.

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The same Reason is to be alledged against sailing Quartering, for then the Chace has the Tide pressing three Points before the Beam upon her Broadside, whereas if the Enemy sail with the Wind a Point or two abaft the Beam, he shortens the Time of gaining the Chace's Wake, by having the Tide almost right a-head, and consequently he will be the sooner up with her.

Wherefore, to prevent both these, it is best steering with the Wind upon the Beam; and by keeping in this Position, the Chace has the Advantage, if it should prove calm, by being directly to Tideward, or in the Eye of the Tide.

XV. *But admit the Tide sets from the Enemy to the Chace.*

IN this Case it is best sailing Quartering; for if you sail away with the Wind upon the Beam, the Enemy will be in your Wake, so that if it should prove calm, he may tow away before the Tide for you; and if the Wind continue, all you can get is by sailing, and as for hauling close upon a Wind, that is rejected before, and the Tide setting from the Enemy to the Chace, removes not those Disadvantages; neither will the Chace have better Fortune in sailing before the Wind, for then the Enemy will shorten his Way by Quartering with the Tide upon one Quarter, and the Wind upon the other, which is (perhaps) the quickest Motion in a Tide-way, except Quartering before the Tide; whereas if the Chace sail Quartering, she has an Advantage of the Wind and Tide last mentioned: then if the Enemy comes before the Tide with the Wind upon the Beam, he will, (perhaps some will say) by the Favour of the Tide, recover the Disadvantage of the Sails, and so shortly gain the Chace's Wake; but whether that will be equivalent to the Circumstance taken, is left for the Mariner to determine; and as for his steering directly for the Chace, that will not be so quick a Motion as having all the Sails just drawing, and the Tide upon the Lee-quarter.

XVI. The

XVI. *The Enemy to Leeward, and the Tide setting to Windward.*

IN this Case it is plain the Chace must ply to Windward, unless the Master designs to try the Fortune of a Battle. In doing this, Care must be taken to keep in the best of the Tide, and not to stand into Eddies and Counter-Tides; and when the Tide is done, Care must be taken to bring up in Time, unless a Counter-Tide, the Wake of some Sand or Point of Land favour the Chace, or by being of a small Draught of Water, she may work to the Windward close in with the Land.

XVII. *The Enemy to Leeward upon a Leeward Tide.*

AT first Sight of the Enemy, the Chace must bring up and ride till the Tide be done, unless the Opportunities mentioned in the last present themselves.

XVIII. *The Wind three or four Points off Shore, the Enemy to Leeward, and a Leeward Tide.*

IT is evident, that neither the Chace nor the Enemy can lie along Shore; and if they stand close hauled, and the Tide as we suppose, sets along Shore, they receive it on their Weather Bows, and are hurried off to Sea. What Advantage it will be for a Ship to put from the Land with an Enemy in Chace, let the Master judge, who is best acquainted with the Condition of his Vessel upon the Coast, and the Mutation of the Weather, &c. What will be the Consequence of bringing up, we will here examine.

Suppose the Tide set parallel to the Coast, the Wind blowing about three Points off Shore, the Enemy four Miles and an Half to the Leeward of the Chace, and both along Shore; then, if the Enemy lie within $5\frac{1}{2}$ Points of the Wind, he receives the Tide upon his Weather-Bow, and the Point he makes his Way good upon, is not easily known; for if there be but little Wind, the Way is more Leewardly than with

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with a brisk Gale: However, suppose he makes his Way good within seven Points of the Wind, if he stand still with his other Tacks Aboard, he can fetch the Chace; he must not put about, until he is so far in the Offing, that he will not be able to discern the Chace close under the Land, who may trip her Anchor and drive, while the Enemy is standing off, then veer, and run close along Shore Quartering; by that Time the Enemy is so far in, (as to see the Roader, had he not weighed) the Chace will be out of Sight, and perhaps under the Covert of some Fort, &c.

But some perhaps will say, the Chace had better, at such a Juncture, work to Windward; for by such a Conduct he prolongs the Chace, whereas this Stratagem of bringing up and then veering, is dangerous; for should the Enemy espy you when your Canvas is spread, he will have you Lasking.

It is granted, that in working to Windward, the Chace may prolong her Time, if she might stand off so far as the Enemy, without any apparent Danger; but the Inconveniences mentioned, confines the Chace to work under the Land, where the Tide runs strongest; when the Enemy makes long Boards out in the Offing, where the Tide favours him, and so consequently he will be the sooner up with the Chace.

And as for the Enemy's seeing you, that is a Bugbear; for he being far in the Offing under the Land, it appears hazy to him; but what if he does see the Chace, he being at a considerable Distance, must come in with the Wind upon the Beam, while the Chace sails along Shore Quartering; and when the Tide is turned, the Chace will have a double Advantage, for she going along the Shore Quartering, stems it, when the Enemy receives it upon Lee Bow, having the Wind a Point before the Beam.

Notwithstanding all which, it is adviseable that the Master consult the Strength of the Tide, and then direct himself according to Judgment.

XIX. The Wind three Points out of the Sea, a Leeward Tide and a Leeward Enemy.

I N this Case the Chace cannot have the Opportunity of giving the Enemy the Slip when he stands off; because if she

she bears away, when the Enemy stands off she must run between him and the Land, and so he will have a better Opportunity of seeing her; or if he should not before he tacks, yet then standing up to the Chace, she will scarce be far enough to the Leeward, by that Time he is in with the Land, so that if the Chace cannot work under the Land, nor dare to venture off; all that can be said, is to prepare for a Fight, and give the Enemy a warm Reception; but not bear away 'till you are sure the Enemy will weather you.

XX. *Advantages may be taken where there is an Alteration of Tide.*

IN some Places the Tide runs different in the Space of a Mile or two, as between the *Suffolk Coast* and the Coast of *Holland* and *Zealand*; as upon the latter the Floods sets to the Southward, and upon the former to the Northward; so that in a Chace half Seas over, a prodigious Advantage may be taken by an experienced Coaster.

Likewise in most Places, the Tides run longer in the Offing than close in with the Shore, also the Indraughts before Rivers after the true Set of the Tide; as between *Orfordness* and the *North Foreland*, before the *Humber*, &c.

All which ought to be seriously considered by the Master, whose Duty it is to know the true Set of the Tide, where it alters, and at what Time, where it runs longest, and where it runs strongest, &c. This Mr. *Park* highly recommends to the Study of young Seamen, and gives them the following necessary Instructions, for the more successful making Experiments, viz. let them prepare a Book in Folio, rule ten Columns on each Leaf; in the first set the Day of the Month the Experiment was made; in the second, the Moon's Age; in the third, the Time of the Tide; in the fourth, the Name of the Coast; in the fifth, the Depth of Water; in the sixth, the Point of the Compass the Tide sets upon; in the seventh, the Knots it runs; in the eighth, the Wind; in the ninth, the bearing of two remarkable Places from the Boat or Ship, when the Experiment was made; in the tenth, how long since any great Rains upon the Coast, if you can get Information.

XXI. *Advantages to be taken among the Shoals.*

WHEN the Chace is among Sands, Rocks, &c. and neither Sailing, nor the Advantage of the Currents variously setting will profit, then may the Master (if the Vessel be of no Draught of Water) work among those Sands and Rocks, and draw the Enemy out of his Knowledge; and if the Stratagem should take, and the Privateer run a ground, without Doubt the Master will know what Use to make of such an Opportunity.

But if Danger is apparent, the Enemy will not venture to follow the Chace, of which we have had several Instances.

XXII. *How two Vessels must act when chased.*

THIS is a very copious Subject, for two Vessels may be in Company, and not able to encounter one Enemy; it is therefore the Conduct of the Masters so to shape their Courses respectively (under every Position with the Wind and Tide) that one at least may escape: But this Branch of the Doctrine of Chacing has not been treated of by any Author I have met with; Captain *Park* having only laid down these three general Rules, viz.

1. If the Enemy be to Windward, let both go Quartering with the Wind upon their contrary Quarters; and when by the Enemy's Conduct it appears which he will Chace first, let the other steer away with the Wind upon the Beam; and by that Time the Enemy has taken his Consort, he will not only be to Windward, but a great Distance likewise from him.

If the other Vessel happen to lay the Enemy before his Consort is taken, the Master's best Conduct will be to haul upon a Bow-line-tack, and get into the Wind's Eye, that the Enemy may upon neither Tack fetch the Chace.

2. If the Enemy and they make a Right-angle with the Wind, let one go away Quartering, and the other a Point from the Wind: If he chace the Leewardmost, let go the Weathermost Tack as soon as the Enemy is directly to Leeward, and stand the other Way to increase the Distance.

3. If the Enemy be to Leeward, let one stand with his Starboard, the other with his Larboard Tacks on Board; and when it is perceived which the Enemy will chase, the other may go a Point from the Wind to increase the Distance.

DEFENSIVE FIGHTING *in GENERAL.*

I. *The Necessity of Merchantmen Fighting.*

IF the Enemy come up with the Chace, notwithstanding the Master's taking all Advantages to be gotten by Wind and Tide, as prescribed in the preceding Part, he must then either fight, run a-shore, or surrender; and in some Cases it is impossible to prevent falling into the Enemy's Hands, as when unprovided they have had the hard Fortune to meet with one greatly superior in Force; unless their Resolution run so high, as to be resolved to die upon the Spot, rather than to bear the Insults of the Captors, or endure the Miseries of a Prison: And when a Merchant Ship cannot otherwise well discharge herself, the Necessity of Fighting is evident: for no Man is so devoid of Reason as not to know that it is his peculiar Interest to defend his Property, unless he will toil and labour for others, and like the Sheep patiently endure the Sheering of his Fleece: And it is certainly far more tolerable, as well as reputable, to perish like the Bee in the Hive, than by a cowardly Submission part with the Honey to every Drone, and consequently left to starve for Want of that he has been working for.

II. *How to prepare all Things for a Fight.*

THE first Thing necessary is to prepare the Ship for an Engagement, and then quarter the Men, for this ought never to be delayed till the Enemy is coming on Board.

An Officer ought to be in each Quarter to encourage the Men, and excite them to their Duty by an exemplary Bravery: To the Master ought to be assigned the Round-house,

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as the most proper Place for him to observe the Motions of the Enemy, whereby to govern his own Actions; besides out of this Place, the Sally is to be made first, in which the Master ought to be the leading Man, as in the Retreat he ought to be the last. If the Ship carry fourteen Hands, he may be allowed three, when the Enemy is on Board; if but twelve, then he must have but two; but while the Enemy is cannonading you, he must have but one, if there be two Guns on a Side, and none if but one on a Side; for where there are but few Hands, the Master must turn to the Cannon, and one Man will manage one, such as our Colliers, &c. carry in their Round-house. In the Steerage must be the Gunner, or when the Enemy is in your Wake, in the Great Cabbin, having two Men to each Gun on a Side.

The Forecastle falls to the Mate's Share, where he is at Hand to manage the Fore-braces; with him must be Men proportionable to those in the Steerage. To each of these Quarters must be a Boy to fetch Powder. The Business of the Carpenter is to look after the Ports, that none be prized open, and to be every where looking for Shot Holes, to plug them up; for this Purpose he must have Shot Plugs in readiness; for though he dare not venture to stop a Shot Hole when Board and Board, yet at a Distance he may, either by bearing up or tacking, so as the Shot-side may be from the Enemy.

Each Man knowing his Post, and whither to retire, it is proper next to have the Ammunition divided, and the Share that falls to the Forecastle may be set forward or before the Cable-Tire, or if a Place was provided before the Mast under the lower Deck upon the Breast-Hook, though never so small, it would be very convenient in Case the Ship should be Boarded in the Night, when it would be dangerous and almost impracticable to get Powder forward, for want of which the Forecastle must be taken. If a Master will not be at this Charge, it would be convenient (for the above-mentioned Reasons) every Evening as soon as the Fire is out, to carry the Powder and Small Arms forward; and that in the Pouch-Barrels must be placed before the Cable-Tire.

Every Evening, or at the Sight of an Enemy, the Shutters are to be put up, and the Leaves let down, the Hatches and Gratings lashed or bolted, and forelocked, this is the Carpenter's Work. He is likewise to see that all Bars, Bolts, and Hinges of the Doors are in good Condition and move freely; for if they go hard, the Enemy may be on Board before they can be fastened.

In all Quarters must be Match ready primed, and in the Night some lighted.

There must be Water in each Quarter filled on Sight of an Enemy, or every Night. In small Ships, Water Tubs in the Tops are not necessary, because no Hands can be spared to manage them if there be Occasion; but for great Merchant-men, it might be convenient, if a Cock was fixed to the Bottom of the Tub, and under that an Hose with a brass Spout fixed to the End near a Yard long, which may be coiled upon the Cat-harpings; and if the Courses take Fire, it is but turning the Cock and directing the Spout thereunto.

This will not carry the Water to the Topmasts, as it will not ascend higher in the Hose than that in the Tub; but an Engine in the Nature of an Hand-pump may supply that Defect.

If the Weather is moderate, the Low-yards ought to be slung every Night; for if an Enemy should on a sudden board, or appear near you in the Dark, it would be difficult to find a Man to go up; besides it would not be prudent to expose Men to be cut in Pieces, when the Thing may be prevented without any Danger. And if a Squall should happen, the Yard may be unslung before it is ready to lower, but Ships seldom lower those Yards at Sea. The Mizzen-Yard is included among the Long-yards, and ought to be slung as well as any of the other; for if the Geers of that Yard be cut, and it run down, the Enemy may carry the After-part over one Quarter, and the Fore-part over the other, and so cover themselves from the Shot of the Fore-castle, which is all the Advantage the Enemy promises himself by cutting down the Main-Yard.

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Before you engage, your Top-sail yards are to be slung on Sight of an Enemy, if the Weather be not squally.

The Gunner is to take Care, that nothing lies in the Way of the Trucks, and that the Axletrees be smeared, for it has been proved, that if one of the Trucks of a Gun be fast when it is fired, it will shoot wide of the Mark. When the Enemy is almost within Shot, if it be smooth Water, the Guns must be loose in the Tackles, and the Ports knocked open; but if there be not Breechings to the Guns, it may prove of ill Consequence in an Engagement; for when a Gun is hot, if the Tackles be loose, it will run in and unreeve the Fall, and to keep it fast is as dangerous on the other Hand, because the Men must go out to sponge it, or haul it in; all which Breechings prevent.

In the Gun-Room or Cable-Tire before, must be Lanthorns hung some Distance from the Powder, for the Boys to see to take Cartridges out of the Pouch-Barrels.

III. *Stratagems used in escaping an Enemy.*

NOTwithstanding the Ship is prepared for a Fight, yet if the Enemy be too formidable, it is the Master's best Conduct, especially in a small Vessel, to have Recourse to Stratagems; which indeed are not to be thought of at all Times, neither is it possible to give Rules in all Cases; but that the ingenious and industrious Mind may improve, Mr. Park has given us the following Specimen, *viz.* 1. A Means of avoiding the Enemy's Boarding you may be, if you are in Soundings, by letting fall an Anchor suddenly, at the very Point when you find the Enemy's Ship upon Boarding you, the which he not at all suspecting, nor being prepared to do the like, it will follow, that the Tide (especially if the Wind and Tide happen to be at one, or that it be a Calm) will so suddenly carry him to Leeward of you, that he shall not possibly be able to recover himself; nor get to Windward again, until the Turning of the Tide, in which Interval your Retreat may be favoured by some lucky Accident.

This Stratagem out of a Tide-way is of little Use.

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2. By quickly raising some thick Smoke or Smother, in your Ship, as if it was accidentally set on Fire, just as the Enemy is about to Board you, which may terrify him from coming near you, thinking that you are on Fire; in which Blind you may perhaps find some Opportunity of winding off from him.

This last Stratagem may or may not take, according as it makes an Impression on the Enemy: However, if it should not, you can but be taken: And as a small Vessel, and not capacitated to fight, the Enemy can have no Advantage. But in a Ship prepared for a close Fight, it may be attended with great Inconvenience; for, should the Enemy make a right Conjecture of your Design, he has a very favourable Opportunity to Board you under the Cover of your own Smoke.

In the Night it is not a difficult Thing to lose an Enemy, especially in a Tide-way; which may be done by hauling up your Sails, and dropping your Anchor at once: Hauling up your Sails will render you less visible, and the bringing up at once will totally eclipse you; for the Enemy on a sudden shooting a-head, loses Sight of the Chace, and will not know what Course to steer, to recover his Object. In managing this, the Master must take Care that in casting his Ship, he do not Board his Enemy.

But if it be out of Soundings, or in very deep Water, then only haul up your Courses, lower your Top-sails, and bring too at once: Or if you are chased before the Wind, run away with the Wind upon the Beam: Or if chased with the Wind upon the Beam, either go before the Wind some Time, or bring too the other Way: Or, if you go away close hauled, and the Enemy to Windward, bear round up at once, and steer away Quartering, or before the Wind.

In all these the Master must be cautious of getting into the Wind's Eye at first; because it being commonly clear to Windward you may see farthest, especially if there be a Glare.

IV. How

IV. *How to defend a small Vessel a-shore.*

IF the Enemy by Estimation be too powerful, it will perhaps be better Conduct for a small Vessel to run a-shore, rather than trust too much to these Stratagems: For it is ten to one whether he will adventure boarding you, as he runs the Hazard of Bilging his Ship; and as for Cannonading you it signifies nothing, considering the small Number of his Guns (i. e. such Privateers as cruize along Shore in quest of our small Craft) the uncertain shooting upon the Water, and consequently the Number of Shot he may fire, before he can do you any considerable Damage; but I presume a Privateer will not be at this Charge, for the sinking or beating to Pieces an Enemy that will not make good the Expences of his Powder and Ball, nor answer the Expectation of his Owners and Men. He will rather send his Boat to get off your Vessel, and under Fear that this may be his Conduct, it is necessary that the Master at the first Sight of the Enemy, to haul in his Guns, that is, get them housed, if he have but a few, that the Enemy may have no Suspicion of his making any Resistance, and to proceed carelessly to the Entering-Place. If there be any Time to spare before the Boat comes on Board, let it be used in flinging Yards, and in doing it, pass the Chain under the Bunt of the Sails of all the Low-Yards, for this prevents the Enemy's losing it; and when the Sails are loose and the Robins cut, it will cover the Enemy, as the Mizzen and Main-sails from those before, so the Main-sail and Fore-sail from those abaft.

For this Reason, leave no Port sails, Tarpaulins, other Sails or Pieces of Canvas upon the Decks.

Some perhaps will think it better to cut the Geers, and let the Yards run down that the Enemy may not use them in getting off the Ship; but perhaps this will too much pester the Decks, which ought to be clear.

And for using your Courses to get off the Ship, it is prevented by the Top-chains being past under the Sail; and if your Braces be unreeved, your Top sails are also useless.

In

In the next Place, unship the Windlafs, and tofs all the Handspikes down the Scuttle into the Forecastle; also unship the Tiller, and put it down below, if you steer open.

Lash down your Hatches, bolt your Doors, and clap the Stoppers upon the Cable in the Tire that they may not haul it out, to carry out an Anchor to get off your Ship.

Being thus prepared, and your Cannon loaded with a Box or Case of Musquet-Shot, and a Cannon-Ball, either round or double, though the latter is the best; as soon as the Boat comes within half Pistol-Shot, or nearer, lift up the Port, and without running it out, discharge at the Boat, and then let down the Port and lash it in, after which fire out at the Loop-holes in the Quarter, with your Blunderbusses.

If these Proceedings neither sink the Boat, nor dishearten its Crew, fire your Powder-tub; but the Master must be here careful to fix two Guys to the Tubs, one to go forward into the Forecastle, and the other to come into the Steerage or Great-Cabbin, that it may not be fired in vain.

If, notwithstanding this, they enter, be watchful to shoot the first Man that comes over the Side, who commonly is a bold and daring fellow; his Death will be the half vanquishing of the Boat, but if then they all pour in, ply briskly your Hand Granadoes out of your Scuttles. Thus, if they send eight or ten Men, you may destroy them all before they can force your Close-quarters; and if you can possibly stop the Boat from returning, you prevent the Privateer's making any more Attacks upon you; for not knowing your Force, and having all the Men he sent cut off, he will not adventure to Re-board you after such a Reception.

However, having seized the Enemy's Boat, it would not be an Act of Cowardice in the Master to leave his Vessel, if he, by the Privateer's Conduct, mistrust his Boarding him, and that he is of much superior Strength; but if the Master should do this, I advise him to order his Trains as directed in the next Article.

But if the Master be a Man of extraordinary Courage, and is resolved to defend his Trust, let what will happen, and

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and obliges the Enemy, with Loss, to retreat, he justly and greatly deserves to be applauded and rewarded.

It may perhaps seem impossible to some, that three or four Men, and as many Boys, can destroy twenty or thirty before they force their Close-quarters ; however it may and has been done, the Men being good Marksmen, and the Boys learned to load a Musquet dexterously. Now in a small Vessel every Man and Boy having two Musquets, a Pair of Pistols, and four Blunderbusses to spare, all ready charged when the Enemy enters, it is presumed that the Boys may charge as fast as the Men prime and fire ; for they do not fire at Random, but look out for the Enemy, take aim, and then fire, in which Time a Boy may put in a Cartridge, ram it home, and, without putting up the Gunstick, give it the Man, who may as he cocks, prime ; for which End he must have a Priming Bandalier of small corned Powder hanging at his Wrist. Sometimes the Decks may be filled with the Enemy's Men, and it may require Speed to clear them ; then must the Boys be ordered to their Musquets, and assist in the Execution.

V. How to proceed after you have run a great Ship a-shore.

THE running a Ship a-shore is certainly hazardous, for should she set upon a Rock, uneven Ground, or upon a Sand, she may be bilged or wrecked, and so the Conduct taken to save her may effectually lose her ; yet it is better to lose her thus, than to enrich the Enemy with the Loss of your Liberty : Though it is a Thing the Master ought to consider, and not carelessly proceed to it, nor too superficially adhere to the Counsels of his inferior Officers, or Consent of the Men : For if he run her a-shore at the Sight of an Enemy he is in a Condition to engage, he acts contrary to the Justice he owes his Country, the Interest of his Friends, and the Trust reposed in him, consequently he loses his Reputation, and with that his Employ. But if the Enemy be numerous, and not the

the least Hopes of defending the Ship by Fighting, or escaping by Flight, it is then Prudence to run her a-shore, and Bravery to defend her there; which may be done by mooring her, if Time permits, Broadside on, getting all the Guns on one Side, and out of the Stern and Bow-Ports, and then act as Circumstances require.

But if you foresee a strong and numerous Attack by King's Ships, the best Way is to take to your Boats; but first you may make great Fires in the Forecastle, Steerage and Round-house, upon Half-Hogheads filled with Ballast; into these Fires put old Shoes, Clothes, wet Oakum, and whatever will make a Smoke; then cover the Gratings where the Smoke usually goes up, letting it come out at the Port and Loop-Holes in the Quarter. This must intimidate the Enemy from coming to plunder your Ship, or setting her on Fire in good Earnest; especially if your Powder Chest and Granadoes upon your Quarters be all primed, and Matches laid, that they may fire at different Times.

Or to prevent the Enemy's getting her off, you may sink her, or else lay Trains with good Firelocks at them, charged and cocked; to their Triggers tie Pieces of Marline, which may be fastened to the Scuttles or Doors of the Closer-quarters, that when the Enemy opens them, he may pull down the Triggers, and blow up the Ship: But it must be observed, that some Weight be tied to the Piece, for some Muskets will bear their own Weight by the Trigger, when they are cocked and not go down: Several Pieces, thus fixed, will effectually do the Enemy's Business, if they are to Board you.

Captain *Park* gives no Reasons for leaving of Ships when attacked by Men of War, yet encourages their being defended against the Privateers: "Because," says he, in Sect. 7, Page 141, "I would not have some that may read this Book know them, lest they make a false Construction of them, and think they are conclusive in all Circumstances, when sometimes Men of War are no more to be dreaded than Privateers; and as for Men of Understanding, they will easily comprehend my Meaning."

VI *No Danger from an Enemy in a Sea Gale.*

BUT when the Sea is grown, and a fresh Gale, there is no Need of running your Ship a-shore, nor surrendering to an Enemy though ever so superior: For if the Enemy pretend to Cannonade you, he may fire all the Shot in his Ship, and not hit you; for when the Sea runs high, the most experienced Gunner is at a Loss, the Motion of the Ship being so uncertain; and it may be laid down as certain, that no Man is so mad as to Board a Ship in a Sea-Gale; it also has been made evident from their Conduct, that the Privateer Captains are more cautious than to venture their Egg-shell Sides against our *English Oak*; and perhaps an Instance cannot be produced, and the Privateer not a sufferer.

VII. *It is of ill Consequence to carry a Prest-sail, if it blows.*

THERE are some Men in the World that will run a greater Danger than that of Bilging their Ships against Rocks, or fighting an Enemy they are capacitated to encounter; and that is by carrying too much Sail to hazard their Overfetting, which is a Piece of Conduct not easily accounted for: Daily Experience teaches us that Man is not invincible, but none can resist the Sea when under its surface; if they therefore are resolved to die rather than be Prisoners of War, let it be by revenging their Misfortunes upon their Enemies, and who knows but the Consequence thereof may be their Liberty: Besides, carrying a Prest-sail endangers the Masts and Yards, and if any of them come by the Board, the Enemy can lie upon your Bow, Counter, or thwart your Hawse, and rake you Fore and Aft at his Pleasure. So that meeting an Enemy; it is most rational to go away with an easy Sail, and make a running Fight, until Night may Favour an Escape.

VIII. *Make*

VIII. *Make the Enemy enter his Men over your Quarters.*

BUT if after all Effays the Enemy come up with, and is resolved to Board you, which is usual upon the Weather Bow, Side or Quarter; if he attempt to be upon your Bow, bear up before the Wind, (which answers in a light Ship) bring your Enemy a-stern, and constrain him to enter his Men over your Quarters; which if he refuse, bring too the other Way, and give him the other Broadside: If he veer his Ship to make a second Attempt, serve him so again, unless you have an Advantage of laying him thwart the Hawse (which rarely offers, to the Leewardmost Ship; then if his Men enter, they are exposed (in their Approach) upon their own Forecastle, to fire out of the Loop-holes in the Quarter and Fore-chains; and as they enter, they are in no less Danger from the Fire through the Bulkheads of the Steerage, Forecastle and Round-house: Likewise the Cannon in the Close-quarters will do the Enemy a considerable Deal of Damage, while he continues in this Position.

But notwithstanding there is a great Advantage in lying thwart the Enemy's Hawse, yet the performing it is attended with a Difficulty that ought to be considered before attempted, and then nicely performed, that instead of being thwart the Enemy, he is not thwart your Hawse: But this must be left to the Discretion of the Commander.

IX. *Discharge, but get not in the Cannon open; both must be done in your Close-quarters, and on the contrary Side to the Enemy.*

BUT if the Enemy sails better than the Ship he attacks, and it is evident most Privateers out-go the generality of our Merchantmen, then will they Board him, maugre all Opposition, in what Place they please, except thwart the Hawse, which is not to be suffered through Want of Conduct in the Ship so boarded.

But

But before he is on Board, the Commander must order all his Guns in the Wasse, and upon his Quarter-Deck, to be discharged without letting them run in ; for if they should be loaded when the Enemy enters, and they should traverse any of them fore and aft, they would soon level the Bulk-heads with their own Cannon ; whereas, if they are out, and the Tackle falls moused, or a running and standing Part seized together, their Men will then be more exposed before they can accomplish any such Design ; and lest under the Covert of your Smoke, or any other favourable Accident, they should get in a Gun, the designed Advantage may prove their Ruin, by leaving in every Gun when you retire to your Close-quarters, a Piece of lighted Match.

And those on the Side from the Enemy when engaged, in the Close-quarters, must not only be discharged but got in, that the Enemy do not toss in Hand-Granadoes, or Stink-pots, to destroy or suffocate the Men in those Quarters ; and that they should be discharged is necessary, because otherwise an Hand-Granado, Fire-pot, or some such Thing may discharge it in your Quarters, and do more damage to your Ship than the Enemy, or by carrying away a Port make a Vacancy, where the industrious Enemy may toss in Showers of Hand-Granadoes ; besides, in discharging your Cannon, they run in of themselves, whereas at such Time the Hands cannot be spared to get them in.

X. How to act when a Ship comes up in your Wake, and lays you aboard upon the Quarter.

THE Enemy in his Approach to Board you, comes either by your Wake, upon your Quarter, upon your Broadside, or lastly upon your Bow.

If the Enemy come up to your Wake, ply him briskly with your Chace-Guns, loaded with round and cross-bar ; and as soon as he is within Pistol-Shot, give him your Guns, loaded with double-headed Shot, and a Bag of Case-shot ; the former may spoil his Masts and Rigging, and the latter destroy his Men : Next let your Guns upon the Quarter be

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ready

ready loaded with double and Case-shot, and as the Enemy ranges up your Quarter with his Men ready to enter, they may be discharged among them; let likewise your Powder-Tubs be ready, and just as the Enemy is going to sheer Aboard, set fire to the Fuze, hoist it up to the Yard-arm, and then let it run amain among his Men upon the Deck: If he still persists in his Resolution, and Board you, let all your Ports be lashed in, lest the Enemy wedge them, which is of ill Consequence, as has been before observed: Keep firing your Blunderbusses out of the Loop-holes in the Quarter among his Men, as they stand thick and ready to enter; as soon as he is Aboard, spring your Powder-Chests upon the Quarter, for then the Men will, mounting your Quarter, be numerous. Let your Men in the Round-house be ready with their Small-Arms to give the Enemy a Volley as soon as they come upon your Quarter-Deck, and those in the Forecastle must keep a watchful Eye upon the Poop, that they do no Mischief there; likewise those must pick off the Enemy as they mount the Main or Mizzen-Shrouds.

If the Enemy come in Numbers upon the Quarter-Deck, discharge one of your Cannon out of the Round-house, with Case-Shot at them; if that will not clear the Deck, let fly the other: And if a Breach is feared before they are re-loaded, toss out of your Ports some Hand-Granadoes; if these do not drive away the Enemy, before the Guns are re-loaded, then spring a Powder-Chest, as the last Remedy; for it is Prudence in a Commander to let them stand as long as possible, because they do not only strike a Terror into the Enemy, but are at all Times ready; and so long as they are standing, the Enemy will conclude you are in no great Extremity.

From all Places having an Eye to your Rigging, and be sure to aim at the leading Men. Observe if the Enemy be so far ast, as that the Chace-Guns may be brought to bear, if so, spare two Hands to ply them, who must be sure with Round Shot to aim at the Water-line; and if they be good Marksmen, it is ten to one but they will spoil his Voyage.

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Men fire with Discretion, they will soon make a Ship of considerable Force to leave so hot a Place as this must consequently be.

XL. How to act when the Enemy comes upon your Broadside, and boards you there.

IF the Enemy comes upon your Quarter, or upon your Broadside, your Conduct in both Cases is much the same, and as soon as he is near enough, give him your Broadsides as fast as you can load, and fire; but when he is within Pistol-shot, and his Men preparing to enter fore and aft, give him your Broadside with Partridge and Cross-bar; then at each Yard-Arm swing off a Powder-Tub; and in the Interim let the rest of the Hands get the Guns next the Bulkheads to those Ports; and if there be any to spare, let them ply the Small-Arms out of the Loop-holes upon the Quarter, and because the Enemy are not yet separated, and a Blunderbuss carries most Balls, let them be the only Arms used, until he is on Board. Having sprung your Powder-Chests upon the Sides, turn all Hands to the Bulkheads, in Readiness to receive the first Attack, which will be the briskest; for being Side and Side, his Men will enter upon the Forecastle, Main-deck, and Quarter-deck; to clear the first and last, the Guns in the Round-house are of excellent Use when loaded with Partridge; but they are to be managed with Discretion, and one ought not to be discharged until the other is almost loaded; when they are discharged you must only lift up the Ports, and give Fire without running out the Guns, for that requires too much Time; beside while it is getting out, the Enemy may fire at your Ports, and by some Random Shot kill or wound the Men at the Tackles. These Pieces being fired Point blank, expose none of your Men in any of the other Quarters, as those in the Steerage and Forecastle; for when any of the latter are discharged, should an opposite Port be open, the Men near it are evidently exposed; therefore to prevent the ill Consequence of this, it is absolutely necessary to have Signs to give

give each other, that they neither fire needlessly, nor expose themselves to their own Balls ; and because a Noise cannot be heard at such a Time for the Guns, nor a Signal seen for the Smoke, they may observe to fire the Cannon out of the Forecastle first, then out of the Steerage, and so alternately as Occasion requires.

In firing these Guns you may only lift up the Ports, as was directed above for those in the Round-house : Care must be taken of the Rigging, that the Enemy do not too much damnify that, nor cut your Sails loose.

Springing the Powder-Chests must be left to the Discretion of the Officers ; only as was before said, they are to be the last Remedy.

XII. *How to act if an Enemy be thwart your Hawse.*

THE laying a Ship thwart the Hawse to enter Men into her, it is not approved of by Commanders of Privateers ; and (without Doubt) they are sensible that to lie in this Position, without any Inclination towards either Bow, is the most difficult Place of Access ; for the Men must ascend the Shrouds, and one by one pass down the Bowspit, all which Time they will be exposed to the Men in the Round-house and Fore-peak.

It seems impossible for the Ship to lay his Enemy thwart the Hawse, if there be a Gale, the Sails and Rudder serviceable, and the Master a Man of good Conduct, unless by Accident, or in a Calm with his Oars : To render this somewhat apparent, suppose a Ship going before the Wind, and a Privateer coming with the Wind upon his Beam, designing to thwart his Hawse, if he lies by a-head, it is but standing out a-stern of him ; or should the Enemy pretend to run there at once, he hazards his Masts ; or should the Enemy run along-side of him, just shoot a-head, and then put his Helm hard over, some will say, that then he will be thwart her Hawse, because the Merchant-Ship will not obey her Helm soon enough : But this (though the most probable Way) depends upon so nice a Point timing the

the Enemy's bearing away, that it is ten to one whether he accomplishes his Design, and be exactly thwart his Hawse, so as to bring his Guns fore and aft to bear; for if the Merchantman do not strike him exactly in the Midship, or run his Bowspirit between the Privateer's Main-shrouds, he will swing upon his Bow.

The same may be proved when going upon a Wind, or Large; but it is needless to those that believe it, and nothing but an Experiment can satisfy those that do not: But if such Misfortune should be accomplished by a Ship of any considerable Force, all you can do in such a Posture is to fire those Guns forward that may be traversed to bear; and if the Enemy attempt to enter, fire not in Volleys, nor quick, but let them approach till they have almost filled your Decks, and they will forbear to batter your Ship with their Cannon, least they kill their own Men, though now and then knock down a leading Man. When they are numerous, treat them somewhat roughly, but do not give them a Repulse; but as soon as they begin to fly forbear firing, and let more of their Consorts enter; spend the Time thus dilatory, and in the Interim be backing and filling, that you may swing along his Side; but if that cannot be, and the other Bait take, and you have sufficiently weakened the Enemy, make a brisk Sally at once, drive them off your Decks, and enter their own Ship with them Pell-mell. And this, says Mr. *Park*, in my Judgment, is better Conduct than to kill his Men as fast as they enter, which may be done; but then they will turn to Battering, the ill Consequence of which I need not mention.

XIII. How to act if the Enemy be upon the Bow.

IF the Enemy attempt to be thwart your Hawse, or upon your Bow, when going with the Wind upon the Beam, put your Helm hard a Weather, shiver your After-sails, and having fired your Broadside, prepare to receive them upon your Decks. In this Posture you have the greatest Advantage that can offer, especially if he lie so that your

Cannon fore and aft will bear ; they may ply those forward with Cross-bar and Case-shot, and those abaft with single Round-shot, aiming at or just below the Water-line ; as for his Men, they must come over your Fore-castle, and so lie open to the Fire of your Small Arms and Cannon in the Round-house, which latter (if well managed) must make terrible Work among his Men, being fired with Case-shot : No less are they exposed to the Small-Arms in the Steerage. But if the Enemy force your Forecastle, then may the Men in those Quarters retire, having nailed the Cannon ; or if they have Time and Courage enough, fill them half full of Powder, and the other half with Round Shot, then point them for the Bow the Enemy is upon, fixing Fuzees to fire them ; all the Granadoes must be set on Fire, that the Enemy may not use them to your Destruction : It cannot be actually determined what may be the Effects of this Conduct, but it seems to be almost certain that the Cannon will be split, the Deck over the Forecastle ript up, the Shot will go through your Bows into your Enemy's, and carry Splinters to the Destruction of all that stand in the Way. Firing the Hand Granadoes before you retire, is to prevent the Enemy's tossing them after you, they ought therefore to have Fuzees of a shorter Duration than those upon the Cannon ; and it may prove fatal to the Enemy if you leave three or four Granadoes, whose Spiggots are filled with whole Powder, with beaten at the Top.

The Men that leave the Forecastle must stay to prevent the Enemy's coming Aft, which may be easily done with half Pikes, Javelens, and Hand Granadoes, under covert of the Bulk-head.

But if the Enemy, after the Splitting of the Cannon and breaking of the Shells, lodge in the Forecastle, let your two Cannons in the Steerage incessantly play upon its Bulk-head, with double, round, and Case-shot, until it is level with the Deck, that the Enemy may have no Covert there : As for the Damage the Ship will receive by such Conduct, and the splitting the Cannon is inconsiderable ; for Fights are like Storms, in both which a Part is never brought in

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Competition with the Whole ; and it is much easier and more reputable, especially after so brisk an Effort, to rebuild the Forecastle, than to build a new Ship.

If they shelter under the Bow of the Long-Boat, the Men that have before retired from the Forecastle must drive them from thence with their Muskets, through the Loop-holes in their Coamings.

XIV. How to make a Sally.

HAVING (by a vigorous Defence) repulsed the Enemy from your Bulk-heads and cutting up your Decks, it may be necessary to make a Sally to compleat your Victory; but by the Way, the young Master must use great Caution before he sallies out, lest he be drawn into some Stratagem to his Ruin ; therefore, for a Ship of but few Hands, it is not a Mark of Cowardice to keep the close Quarters so long as the Enemy is on Board ; and if his Men retire out of your Ship, fire into him through your Loop-holes and Ports till he calls for Quarters : And if it should even come to that, you must proceed warily, (unless you out number him in Men) and send but a few of your Hands into his Ship, while the others are ready with their Small-Arms and Cannon charged ; and if they submit patiently, disarm and put them down below, where there is no Powder or Weapons ; but plunder not, lest your Men quarrel about Trifles ; nor be intent in searching for Money, and thereby give the Enemy an Opportunity to destroy you ; and if you take the Prize, (when you come into an Harbour) let every Thing be equally shared among the Men, the Master only reserving to himself the Affections of his Men by his Generosity ; which with the Honour of the Victory to a brave Mind is equivalent to all the rest.

But to return ; in making a Sally as aforesaid, Caution must be used, if the Enemy be not put off ; so there must, if he be, lest some of the Enemy's Men be hanging about your Quarters or in your Chains ; wherefore if you have Gallies, look out there, and pick them off, till by Estimation, their

their number is inferior to yours : Then let the Commander by some signal, inform his Men in all the Close-quarters, that they may be prepared ; which cannot be better done than by taking the Ship's Bell into the Steerage before they engage, for the Cabbin Bell will not give Sound enough : Likewise before the Battle begins, the Officers, in each Quarter, ought to have Instructions, at least verbal, (though it would be better in Writing) that they know how to govern themselves when the Signal is made.

It is presumed that the Sally will be most advantageous, if made out of the Round-house, because having cleared the Poop, you will have no Enemy at your Back : Wherefore let all but two or more, according to your Number, step up into the Round-house, bringing with them all, or most of the Musquets and Pistols there, leaving only the Blunderbusses. Let all the Small Arms in the Quarters be charged, and the Cannon that flank the Decks out of the Bulk-heads, traversing those in the Round-house, pointing towards the Mizzen-mast, to gaul the Enemy in case of a Retreat : All Things being thus prepared, let the Powder-Chest be sprung upon the Poop, and four Hand-Granadoes toft out of the Ports, filled with Flour and Fuzees of a long Duration ; then let the Door be opened, and in this Confusion make your Sally at once, half advancing forward, and the other facing about to clear the Poop ; when that is done, let them have an Eye to the Chains : At the Round-house Door let two Men be left to stand by the Ports Cullis, each having a Brace of Pistols to secure a Retreat ; let those in the Fore-castle never shoot right aft, after the Sally is made, unless parallel with the Main-Deck. The rest must be left to Judgment.

XV. Merchantmen have the Advantage of Cannonading Privateers.

TH E gallant and exemplary defensive Fights made by some of our Merchantmen, have made the Privateers so cautious, that it is not every Ship they will adventure to Board ;

Board ; and perhaps this Unwillingness is not only in the Commanders but in the Men too ; who have been slaughtered in such Shoals, that the Impression it has made upon their Minds, drowns the very Hopes of their Plunder. Some to prevent these Mischiefs, pretended to Cannonade our Merchantmen ; a Practice that in the Sequel may prove as pernicious to them as the former, if they meet with gallant defendants ; and this is not such a Paradox as it may appear at first Sight, if, first, it be considered the Strength of each Ship ; secondly, the Proportion of their Cannon : and lastly, the Number of Men in each Ship.

First, It is sufficiently known that our Merchant Ships are built for Burthen, and accordingly have the Strength proportioned to the Use they are designed. On the contrary, Privateers are built for sailing, which is the Property of a weak Ship, and consequently they are such, otherwise they would not so well answer the Expectations of the Adventurers. Besides, the former are designed for a longer Duration than the latter, and for that Reason are built of good *English Oak*, the other being only designed for cruising a Summer or two, are built of Fir or thin Plank, that will splinter worse than Deal.

Secondly, Our Men are sensible that their Cannon are a prodigious Strain to our Ships of War, which are built of good Oak : Whereas should Privateers carry a Weight of Guns proportionable to our Ships, their peak Sides would fall to Pieces the first Storm they happen to be in at Sea : This is evident, and for this very Reason, though they put in an equal Number of Guns proportionable to the Hulls of our Frigates, they are of a less Nature.

Lastly, As for their Men they are numerous, but that does not greatly avail ; for in Cannonading, they want more than will manage their Cannon and Sails and the rest stand only to stop a Shot, or by their Wounds to strike a Terror into each other, especially idle Spectators.

It is impossible to limit Commanders what Ships to fight ; and to whom surrender ; what has been abovesaid, is only to assist them in forming a Comparison, on which Side the Advan-

Advantage lies. Mr. *Park* says, *Sect. 17, Page 161.* That a Collier of eight Guns and twelve or fourteen Hands, may lay a Battery against a Privateer of twenty Guns: This, adds he, may seem a prodigious Advantage, that each Broad-side the Enemy sends ten Shot to the Collier's Four; but in Reality the Odds are not so great, if we consider the Collier's Sides will better endure twice ten Shot, than the other Four: And as for their Numbers, it turns to their Disadvantage, for two or three Men will manage one of their Guns, and the rest that stand idle are as much exposed, and consequently more concerned at the Slaughter of their Consorts, than Men fully employed; also they being quartered far distant from one another, five hundred Shot may go through the Ship's Sides, and not hurt one of them, whereas it is almost impossible a Shot should go through their Egg-Shell Sides, but it must kill some, besides the terrible Work the Splinters must make: From all which it is evident, that there is not so great Disparity, as some imagine, on the contrary Side.

XVI. *It is best Conduct for Merchantmen to fight before the Wind.*

IF all these Advantages be by the Sailors rightly considered, and they act according to their usual Courage, the Enemy must purchase his Prize with the Blood of his Men; and perhaps after he has been extravagant in that, he may go without her; especially if the Merchant Commander use the Courage of his Men with good Conduct, and suffer not the Enemy to possess the Advantages he expects by his good Sailing; which is only to be prevented by bearing away when the Engagement begins, and to fight before the Wind, for the following Reasons, viz.

I. It is acknowledged by all Seamen, that in an Engagement the Smoke is very offensive to the Leewardmost Ship, not only by blinding the Men, and hiding the Enemy a considerable Time from their Sight, making them act with Fear, and in an implicit Confusion shoot at Random, but

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it also stifles and suffocates them ; and it cannot be otherwise with a Merchantman that fights upon a Wind, because if he outfails the Enemy, there will be no Battle ; and it is absurd to think an Enemy will fight to Leeward, when he can get to Windward : Because,

2. The Ship to Leeward fighting with her Weather Guns, has her Water-line more or less, (according as it blows) above the Surface of the Water, and a Shot between those two, (i. e. the Surface of the Water, and the Water-line, or according to the Sea-phrafe, between Wind and Water) may prove of worse Consequence than Ten, nay, I may say, an Hundred, upon the upper Work ; for should she tack or bear up, without perceiving it, she may be sunk before it is known where the Water came in ; whereas before the Wind, the Danger is avoided.

3. Again, if upon a Bow-line your Head-sails are disabled, your Ship will fly too : And if the Enemy be within Musquet-shot you must lye at his Mercy, for a Reason that is not convenient now to mention : However, the Danger may be avoided, by fighting before the Wind, because a ship will steer so almost with any Sail, or at least Provision may be made to keep her so, whatever Damage to her Sails or Rigging may happen.

4. *Lastly*, If you fight before the Wind, and the Enemy keep in your Wake, or upon your Quarter, you may bring too either Way, and give him your Broadside, then bear up round, and give him your other Broadside ; and by that Time your Ship is about again, your other Broadside may be ready, &c.

But if your Ship sails almost equal with the Enemy's, this Conduct must be altered ; because it hinders the Ship's Way, and consequently shortens the Chace ; wherefore to prevent this, get all the Guns you can out of the Stern-ports, and keep continually firing, if near, with Cross Bar among his Rigging ; but if at a Distance, fire Round-shot, this will give your Ship Way, and it may also carry away the Enemy's Top-mast, or spoil a Yard ; and a Collier's Stern may be made as hot as her Broadside.

XVII. How to treat a disabled Enemy.

IF an Enemy out-sail a Merchantman, and (in fighting before the Wind) lies fairly along her Broadside, trusting to his Strength and Fortune, without endeavouring to take any of those Advantages his sailing offers; it is unwary Conduct in the Master to pretend to take Advantage of him; because, first his Ship sailing worse than the Enemy, is not capacitated for such Performances, and thereby may bring the Enemy's Broadside right a-head or Stern, and so be raked fore and aft, receiving more Damage from one Broadside in such a Position, than from Ten fairly along-side: And secondly, such Conduct may put the Enemy upon acting otherwise, and thereby give him an Opportunity of taking Advantages he did not intend.

Notwithstanding this may seem strange, yet it is necessary to give such a Caution, though it is not to be followed when the Enemy's Rudder, Yards, or Masts, are damnified, so that he hath lost his Steerage, and hath no Command of his Ship; for then the Master is highly to blame, if he did not make use of such a fortunate Opportunity to lie thwart his Hawse, or under his Counter, rake him fore and aft, and sink him: Yet he must be careful that he do not Board the Enemy: That is, he do not accidentally fall on Board of him, nor that the Enemy do the same; for it is ill Conduct to give such an Opportunity to a despairing Enemy: The best Conduct will be to give him two or three Broadsides in at his Bow and Counter, and having sufficiently disabled, leave him, unless you have a Letter of Marque, or be near an Harbour.

XVIII. How to act upon a Weather and Lee Shore.

THOUGH certainly it is the best for a Merchant Ship to fight before the Wind, yet it is in some Places impracticable or dangerous; impracticable upon a Lee-shore, dangerous upon a Weather-shore, especially in our Channell before

before the Wind, when it blows at N.W. by North, on N.N.W.

Therefore, being upon a Weather-shore, it is the Commander's best Conduct to cling close to the Land, that the Enemy may not have the Weather Gage: If he comes up to your Lee-side and Cannonade you, ply your Guns on that Side, and keep jogging on, until you are got under the Covert of some Cannon in a Harbour, or Night comes on: And considering the uncertain Shooting upon the Water, a Man will have hard Fortune if he be not favoured upon our Coast with such an Opportunity, or meet with one of our Cruisers: And if he keeps upon your Quarter, it is only bearing away a Point or two each Broadside, and then luffing, while you are charging: If he keeps upon your Bow, spring your Luff, when you fire, but when he is there, be careful that he does not get thwart your Hawse; if you fear it, either Tack, or (if he be no great Force) give him your Stern before his Chefs-tree.

As it is dangerous to leave a Weather-shore, so it is impracticable to steer before the Wind upon a Lee-shore; so that if an Enemy have such an Opportunity, and lie cannonading your Weather-side, your Conduct will be to shiver all your Sails when he fires, that your Ship may Right, so that as little as possible of the Water-line be above the Water; if he falls a Stern between each Firing, the Chace must keep Time with him in loading and firing; and if he keeps upon your Quarter, luff up in the Wind each Time you fire, that he may receive your full Broadside: When after all, you cannot defend your Ship, the Enemy being too powerful, then run her a-shore, and defend her there, or burn or sink her, any Thing, so as the Privateers have her not: For if they get no Purchase, their Men have no Pay, their Owners no Profit, and consequently that Trade must fall of itself.

XIX. *Masters ought to stand by one another.*

IN the preceding Articles we have treated of Fighting in single Ships; we now come to speak of Fleets: But immediately

mediately before we come to the Subject itself, it will be necessary to observe, that Masters have the strongest Obligations incumbent upon them, to stand by one another; such as their mutual Preservation, the Motives of Honour, the Duty we owe to our Country, and to one another, as Countrymen; of which Duty and Obligation even a Pagan Philosopher thus gives his Opinion; "If it be my Duty, says he, to love my Country, I must also be kind to my Countrymen; if a Veneration be due to the Whole, so is Piety also to the Parts, and it is the common Interest to preserve them: We are all Members of one Body, and it is as natural to help one another, as for the Hands to help the Feet, or the Eyes the Hands: Without the Love and Care of the Parts, the Whole can never be preserved, and we must spare one another, because we are born for Society, which cannot be maintained without a Regard to Particulars."

XX. *How to bring the Fleet into Order.*

IT is absolutely necessary that every Ship should be so disposed to act in a proper Station, that the Fleet may not be in Confusion; and this may be best done by dividing the Fleet into Squadrons, each consisting of Seven or Five Sail: Let one be appointed to command each Squadron, wearing a Merchant Pendant, or some distinguishing Flag: Over all, let one be elected to make Signals for Weighing, Tacking, Trying, Lying-by, Forming the Line, or Bringing-up. What Signals are to be made, must be left to the Discretion of the Person that has the Honour to Command in Chief.

When they form the Line, each Commander must be in the Centre of his Squadron, and the Commander in Chief, with his Squadron, in the Centre of the Line.

Next, after it is appointed who shall follow each other, the Masters must subscribe an Instrument that they will keep their Stations, and proceed as in Council they conclude, upon Sight of the Signal made by the Commander in Chief, and not stand out of the Line, unless by Majority it be concluded

cluded that each Ship must shift for herself, the Enemy being too powerful; and then all Compacts ought to be void, and every Ship provide for their own Safety.

XXI. *They being in a Line, must not endeavour for the Weather-Gage.*

HAVING formed the Line, they must lie by to receive the Enemy, without endeavouring to get the Weather-gage, lest it create Suspicion, and so cause a Separation, which may prove the Ruin of but too many: Neither may it (perhaps, if nicely examined) be found so advantageous for a Fleet of Merchant-ships to have the Weather-gage of two or three Privateers, as a Fleet of Men of War to have it in respect to a Fleet of the same: the latter when going to engage, strive to be to Windward for the following Reasons, viz.

1. To prevent the Enemy's using their Fire-ships, and to have the Opportunity of burning their own.
2. To clear the Smoke, which blinds and suffocates the Men.
3. To prevent the ill Consequence of being shot between Wind and Water.

4. The better to retreat from, or pursue after the Enemy. What Relation these Reasons have to a Fleet of Merchantmen, we will examine: And for the first, neither Privateers nor Merchantmen have Fire-ships, so that the first Reason is invalid.

As for the Second, the Smoke of the Privateer, if to Windward, can go over but one Ship at a Time, and so offensive to none of the rest; and the Merchantmens Smoke drives to Leeward, so that he is always in Sight of the Wings of the Line; whereas if he be to Leeward, their Smoke intervening, eclipses him from their Sight, and consequently they must fire at Random.

The Third carries the greatest Weight; but seeing it cannot be avoided, it must be borne with Resolution: However, it is the Ship opposite to the Privateer that alone will be exposed, therefore Care must be taken to shift her.

The Fourth signifies no great Matter ; for Merchant Ships pursue not, and let them be either to Windward or Leeward, if they are overpowered, some must suffer being out-sailed by the Enemy.

However, we will not determine which is most advantageous to such a Fleet ; but this may be affirmed, that they cannot get to Windward without apparent Danger, not to repeat the Confusion it will create, which is evident, by considering that not one Merchantman in the whole Fleet sails so well as a Privateer : Now if the Fleet work to Windward out of a Line, the best Sailer will be a-head, and that considerably too, before he Weather the Enemy, if he do it at all, who then will have an Opportunity of Boarding, and perhaps carrying him, before his Consorts can come up to his Assistance ; and it is absurd to think of Weathering him by working in a Line ; so that duly comparing one Thing with another, the Fleet had better, at the Sight of an Enemy, keep their Line, and prepare to receive him, or them, without attempting the Weather-gage.

XXII. *It is best sailing in a Triple-Line.*

IF the Fleet be numerous, the Line will spread too far ; and if the Enemy do not attack them, but only wait for a straggling Ship, the Fleet to lie by, loses Time ; both which may prove of ill Consequence.

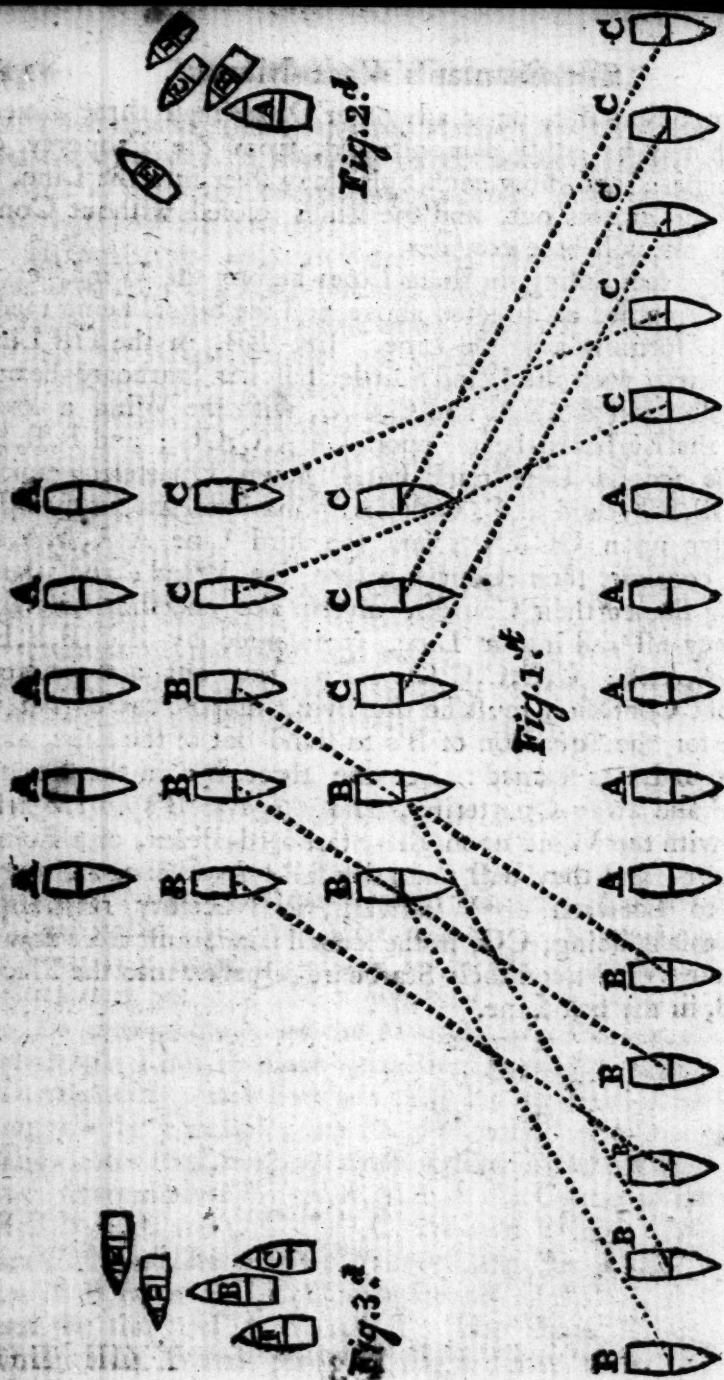
To prevent those, let the Fleet sail in a double, triple, or quadruple Line, or more according to the Discretion of the Commanders ; and between these let the small Vessels sail. Suppose for Example, the Fleet to consist of Fifteen Sail of Ships fit for the Line ; and these divided into three Squadrons, each denominated by A, A, A, A, A the Centre of the Fleet, B, B, B, B, B, and C, C, C, C, C, the two Wings. *Fig. 1.* If the Commanders will sail in three Lines, let the first be made up of B, B, and C, C, C, the second of B, B, B, and C C ; and the third of A, A, A, A, A : The Ships sailing in this Order may sooner form the single Line, than when they sail

fail promiscuously, or in any other Order than three Lines, which may be easily demonstrated, from the Property of Triangles; and how each Ship may steer into the Line, a Squadron drawn out, and the Lines closed without Confusion, we will here consider.

The Fleet sailing in three Lines before the Wind; each Line composed as directed above, and the Signal being made for the forming a single Line. Let BB, in the first Line stand away with the Wind a little abaft her Starboard-beam. Suppose upon BB, BB, and C, C, C, with the Wind a little abaft the Larboard-beam upon CC, CC, CC; and B, B, B, in the second Line must stand down Quartering upon BB, BB, BB; and C, C, with the Wind upon the Larboard-Quarter upon CC, CC; and the third Line A, A, A, A, A must continue their Course before the Wind; and these having shaped their Courses, must make and shorten Sail, till they all fall into a Line, represented by B, B, B, B, B, A, A, A, A, A; C, C, C, C, C. To draw out a Squadron without Confusion must be thus, viz. suppose the Signal is made for the Squadron of B's to stand out of the Line, and then two Lines formed: Let the three B's in the second Line stand away Quartering, and the two B's in the first Line with the Wind upon the Starboard-Beam, or a Point before it; and they will naturally fall into a Line, and may stand to Leeward or Windward, as Necessity requires; while this is doing, CC, in the second Line, must steer down with the Wind upon their Starboard-Quarter into the Place of BB, in the first Line.



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XXIII. *How to act when the Centre of the Fleet is attacked.*

THE Fleet being drawn up into a Line of Battle, if a single Privateer attacks the Ship in the Centre of the Fleet, they must advance, or more properly luff in the Wings, and form an Half-Moon, that every Ship may bring her Guns to bear, and every Man have his Share in the Glory of the Action.

If the Ship that happens to lie a Broadside of the Enemy be disabled in her Mast, or by some unlucky Shot in her Hull spring a Leak, he must not precipitately bear out of the Line, least he cause Suspicion in his Consorts, and give too great Encouragement to the Enemy; he ought to make a Signal before agreed on, that the next Ship a-stern may make Sail and run between the disabled Ship and the Enemy, and stand away to the Wing of the Fleet, and there repair the Damages, as well as Time will permit.

And would Men, every three or four Broadfides, relieve the Ship opposite to, and engaged with the Enemy, it would not only refresh the Men, but put Courage into them, to see each Ship in his Turn take Share in the Hazard; and a contrary Effect it would have upon the Enemy, who will not only be fatigued by continually plying their Cannon, but be out of Heart to see no End to their Work.

But should he bear through the Line, and attack the Ship in the Centre to Leeward; then must the Wings bear away, first into their Line, and then form the Half-Moon with its Points to Leeward.

XXIV. *How to act when the Van or Rear is attacked.*

BUT if the Enemy attack the Van or Rear, let the second to the Commander in Chief advance, and form a Semi-Half-Moon, in the mean Time let the Commander in Chief stand away with the other Part of the Fleet on that Side the Ships are not engaged, and post himself next to the Ships

Ships attacked, and his Second next to him, and so one after another till the Half-Moon is compleat; and there let them lie and fire with Emulation: But by the Way, they must observe to fire between the Ships engaged, at the Enemy, as he stands away for the Wing.

XXV. How to act when the Ship in the Middle of the Wing is attacked.

WHEN the Enemy attacks a Ship in the Middle of one of the Wings, let the Van luff and form Part of an Half-Moon, and as many Ships from the Rear stand away to the Van as will make each Point of the Half-Moon equal; while these Ships are standing away, the Ship that now is in the Rear must luff, and form the other Point of the Half-Moon, which must be done with all the Expedition the Wind will permit; for it is the Ships in the Wings completing the Half-Moon that rake the Enemy fore and aft, and consequently do him most Damage.

XXVI. Better be Boarded than break the Line.

AS for the Enemy's breaking your Line, it cannot be done without he attempt to board one, and that Ship retreat out of the Line, which will not only bring your Ships into Confusion, but create Suspicion among the Commanders, and cavilling among the Sailors; but it will give Heart to the Enemy, who always renews his Courage when charging his retreating Adversary; therefore to prevent the ill Consequence of these threatening Mischiefs, the Master of the Ship attacked, had better prepare to receive him, and let him accomplish his Design; during this his Consorts must get ready to assist him, and act according to his Conduct of the Enemy. Thus,

XXVII. How the other must act if the Enemy lay one thwart the Hawse.

IF the Enemy lay a Ship in the Fleet along-side, the next Ship in the Line a-head must lay them both thwart the Hawse,

Hawse, in such a Position that her Quarter may lie against the Privateer's Stem, and command his Decks, which will be more advantageous than if the Forecastle was there:

1. Because there is more Cannon abaft the Mast than before.
2. Because it being higher, they may clear his Decks with the small Arms out of the Steerage and Round-House thro' the Loop-holes better than out of the Forecastle. 3. Because being two Tire, viz. those in the Steerage being about the Height of the Enemy's Decks, will, if fired with double and round Shot, drive in his Bows, and rake him fore and aft, while those in the Round-house that over-look his Decks, and firing with Case Shot among his Men: If every Man discharge his Duty, the Enemy will industriously strive to disentangle himself, which may be prevented by getting hold of some of his Ropes belonging to his Bow-sprit, and fastening it to your Mizzen-mast or elsewhere.

If more Help is required, two more Ships may Board those already on Board the Enemy, while the rest of the Fleet with their Boats supply them with Men, that they may act offensive; for to Board those already entangled with more Ships is not convenient, because should a Fire by Accident happen, too many Ships will be exposed; besides, those will be found sufficient: But that the two last should Board their Consorts, is absolutely necessary, because the Enemy, being offensive, will enter those Ships first on Board, and the Men in the Boats coming on Board them, will not only be exposed to the Enemy, but also to the Shot of the Men in the Close-quarters. Now if two Ships, as just now directed, Board them, and the Men go on Board those in their Boats, they are in no great Danger; for it is not to be supposed the Enemy can spare Hands to enter four Ships, or that his Men will be so hardy as to attempt it; then may they help to clear those Ships Decks entered by the Enemy, and assist and join their Friends when they fall, and so, without exposing themselves to one another's Shot, repulse and follow the Enemy into his own Ship.

XXVIII. *How the other must act, if the Enemy Board one upon the Bow.*

BUT if the Enemy should Board one of your Fleet upon the Weather-Bow, as admit the Privateer B (Fig. 2.) Board the Ship A, then let the next Ship in the Line a-head of that Boarded, lay his Quarter upon the Privateer's Bow, so far aft as her Stern may be even with the Privateer's Chefs-tree, as C; next let the Ship a-head of him, as D, Board C which Boarded the Enemy, with her Bow upon the other's Quarter, that her Guns in the Steerage and Round-house may bear upon the Privateer. Lastly, let the Ship a-stern of A, that was boarded by the Privateer lay E, the Ship which first Boarded the Privateer thwart the Hawse, so that he E, may fire out of his Steerage between A and C, and he take the Enemy B, fore and aft: The rest of the Fleet must assist these with Men and Small Arms.

XXIX. *How the other must act if the Enemy Board one upon the Quarter.*

'TIS usual for Privaters to Board Ships, so that their Heads may reach their Enemy's entering Place, as the Privateer C has boarded B, Fig. 3. In such a Case let the next Ship a-stern F, lay the Ship boarded B, upon the Quarter, that her Guns abaft may bear upon the Enemy's Quarter; but perhaps some will object against this Conduct, as having no Advantage but what Fortune gives: This is true, but as it hath been before observed, a Merchantman's Quarters are stronger than a Privateer's: But the Enemy may be beat from these Guns, if the next Ship a-head of B, that was Boarded by the Enemy, lay B, thwart the Hawse, so that the Steerage and Round-house Guns may bear upon the Enemy's Decks: If these be not sufficient, let the next Ship E, lay D, the Ship thwart B's Hawse, upon the Quarter, so as her Guns in the Round-house and Steerage may bear upon the

the Enemy. For the rest, proceed as directed in the two preceding Articles.

N.B. Figure 2d and 3d are to be supposed a-head of the Line, (Fig. 1st) and the same Wind blowing.

XXX. *To intercept the Enemy when he puts off from the Ship boarded.*

IN the mean Time, the remaining Part of the Fleet must not be idle; their best Conduct will be to close the Line to the Windward of the Ships engaged, in such a Manner, that if the Privateer put off, they may stand between him and the entangled Ships, that he take no Advantage of them, either by firing Small Shot among their Men, clearing their Rigging, or doing them any other Mischief, which such Conduct may prevent.

XXXI. *To anchor Fleets.*

SHOULD we talk of Riding in a Line, it would look too formal, though in some Measure it would in Time bring our Fleets to a good Custom, and prevent oftentimes that which happens by riding straggling: Under the Convoy of one Man of War, says Mr. Park, I have known a Fleet spread six or more Leagues, which might have rid a good Birth distant one from another in a Mile or two.

This Irregularity not only exposes the Owners of Ships to apparent Danger, but the Captain of the Man of War to unnecessary Trouble and Vexation; and sometimes proves Detriment to his Reputation, as when a Ship considerably a-head or stern happen to be taken, if he gives not Chace, his Courage and Conduct is called in Question; and if he gives Chace he exposes his Fleet, and his Commission also: Hence it is to be wished, that Masters were obliged not to work to Windward of the Convoy, but with Permission by Signal, or in Case of unfortunate Necessity, or within Sight of their Port, (then it is not to be doubted but they would anchor

chor under his Command) nor, when sailing before the Wind, to run a-head of the Convoy, or (if but one Man of War, it being proper for that to keep in the Rear or to Windward of the Fleet) of the Ship appointed by the Captain to sail a-head of the Fleet, carrying a distinguishing Flag, or Merchant's Pendant : But then on the other Hand the Captain of the Man of War ought to be exceeding precious of his Time, and not keep the Fleet longer at Sea than Necessity requires, by losing the Opportunity of the Wind.

We shall not speak much of bringing a Fleet to an Anchor without a Man of War ; for as Necessity will oblige small Vessels to keep close to the great Ships, so the Compact will engage the great Ships to keep close together.

Therefore shall only observe, that in *Bringing-up*, which is commonly upon a Leeward Tide, the great Ships, and those of any Force that ride Weathermost, must bring by such a Birth, without the Leeward-Ship, that if the Enemy standing out of the Sea, cannot fetch the former, he may not the latter : And the Advantage of this will be found, if the Enemy fetch and board the Weathermost Ship, she will be the sooner assisted by her Consorts ; for it must be granted that the Enemy can, if he will cut your Cable ; or you may, if it be to Advantage, cut it yourself, and then as you drive, your Consort may cut and come to your Assistance : And if he attack the Leewardmost Ship, he must come within the Weathermost, receive all their Fire, and if he board her, they can bear down to her Assistance.

In riding under the Convoy of a single Man of War, it is somewhat difficult to protect every Ship from the Attempts of a daring Enemy ; yet in some Measure the Danger may be removed by posting her in the most convenient Place to intercept the Enemy ; which may be somewhat after the following Manner, supposing the Fleet to bring up along Shore, upon a Leeward Tide.

The Coast we will imagine to lie N.W. by N. and S.E. by S. the Tide sets S.S.E. the Wind at South, and the Fleet bound to the Southward ; under these Circumstances the Fleet will be obliged to anchor, if the Tide runs hot.

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After this Fleet is brought up, they fear no Enemy from the Westward, being covered by the Land; nor out of the North-East Quarter, by reason of the Wind and Tide; so that the apparent Danger is from the S.E. Quarter, which ought to be guarded by the Man of War's Situation: The Merchantmen bearing from her between two Points as they shall estimate a Ship's Way in the Strength of the Tide upon each Tack, that the Enemy coming out of the Sea, and going to Leeward of the Man of War, may not fetch one Ship in the Fleet; and if he should take a small Vessel to Windward of the Fleet, he may not (in standing off with his Prize) Weather the Man of War: Was there no Tide the Fleet could not bring up so, as the Enemy going to Leeward of the Man of War, can fetch none standing in; and should he take the Weathermost Ship, he cannot carry her off to Windward of the Man of War.) Then imagine the Tide runs so strong, as with her Larboard Tacks on Board, a Ship can make but a W.N.W. and with her Starboard Tacks on Board, but an E.N.E. Way; then no Ship must ride to the Northward of W.N.W. nor to the Southward of W.S.W.

But if a Ship can lie West, or somewhat nearer, we must not suppose much; because if the Fleet can make better than a West Way in, and an East Way off, they have no Occasion to Anchor; however, if the Enemy should lie to Windward of the E. and W. suppose W. by S. then must the Leeward Ships not bring up to the Northward of the West from the Man of War, but rather W. by S.

I hope, in the Words of Mr. *Park*, that the Intention of this will not be otherwise constructed than a pure Design to hint unto the Masters of small Vessels (such as are not so well acquainted) how they may Anchor under the Protection of a Man of War; this being a Thing they ought to understand as perfectly as the Commander of the Convoy: For if they do not or cannot herein perform their Duty, the Captain of the Convoy may have Part of his Fleet spoiled, and his Honour lessened undeservedly.

How S H I P S are to be fortified in an Harbour.

IF Ships in an Harbour or River, are apprehensive of being attacked, or the like, it is then very necessary that they make Preparations to defend themselves, and it is thought that the best and safest Methods to perform this, is by erecting Batteries upon the Shore, and laying a Boom thwart the River. As to military Fortifications, I do not herein intend to treat about it, (referring those Gentlemen that are desirous to be therewith acquainted, under the Directions of a proper Master, or such Authors who have particularly writ upon the Subject) but confine myself to the Naval Part thereof, as it more immediately comes under the Directions of the Master or Commander; and this I shall exhibit according to the Judgment and Opinion of the ingenious Captain *Park*.

I. The Advantages and Disadvantages of Mooring in a Tideway considered.

BEFORE the Boom is laid, it will be necessary to appoint the Place where to moor the Ships, so that they may be secured against the Enemy's Fire-ships, and yet annoy their Ships of War; These two Points are to be well considered, and the Situation of the Land at the same Time: In order therefore to assist in this necessary Consideration, we will examine into the Matter as far as we are able; And,

First, We will see what Advantage the Enemy has of a Ship moored in the Stream.

Secondly, The Advantage such a Ship has of the Enemy.

Thirdly, The Advantage the Enemy has of a Ship moored out of the Stream.

Lastly, The Advantage a Ship out of the Stream has over the Enemy.

Here we shall not speak of the Advantages and Disadvantages in respect of the Enemy, but those of the Tide, &c.

First,

First, The Advantage the Enemy has of a Ship moored in the Stream.

1. A Ship moored in the Stream cannot so easily have her Broadside brought to gaul the Enemy in his Approach, who always comes with his Stream : This is not so much in respect to their Ships of War ; for if the Tide run too hot for one to lie thwart, it does certainly for the other, if their Ground Tackling be alike in Goodness.

2. It is their Fireships that are to be feared in this Case, who will Board you notwithstanding all Opposition, if you have no Boom, or if it be forced ; for in this Position you can only fire your Chace Guns.

3. And if you heave thwart, he will be the more certain of grappling with you ; for though he comes upon you exposed to your Broadside, yet that will never stop the Progress of the Fireship, unless you sink her. ; for if the Commission-Officers that bring her on have no great Courage and forsake her, yet the Tide will supply their Deficiency.

4. In riding in the Stream, the Cables are exposed to the Enemy, and if a Chance Shot happens to strike them, the Ship will swing upon the Tide, and so the Enemy have the Opportunity of raking you fore and aft : and if the Enemy has any Conduct, he may lay his Anchors so, that his Cables shall be in no Danger from your Shot.

5. Another Advantage the Enemy has, viz. he may with his Ships of War Board you, and then your Forts and Platforms a-shore are useless.

6. As you are moored thwart the Stream, the Enemy may drop a small Anchor out a-stern, veer thwart your Hawse, and so constrain you to alter your Position, or rake you fore and aft.

7. In riding thwart the Stream, the Cables bear a more than ordinary Strain, and are apt to break, or an Anchor to start, and the Ship swing upon the Tide ; then it is ten to one that the other Anchors start also, and she swing to Leeward.

But it is to be observed that the Enemy have only all these Advantages while the Tide sets in ; for when the contrary, they

are on the Defendant's Side; and it must be confessed if there be such a Place where the Tide runs continually out, (if the Wind do not blow always in) the best Way is to moor in the Stream.

Secondly, The Advantages such a Ship has of the Enemy.

1. When the Ship is moored thwart the Tide, she will rake the Enemy in his Approach fore and aft: and so may do him a considerable Deal of Damage before he is thwart the Stream to batter.

2. In riding thus in the Stream, (according to the common Situation of Rivers) the Enemy cannot batter you under Covert.

These are the Advantages and Disadvantages of mooring in a Tideway; we shall now consider the contrary. And,

Thirdly, The Advantage the Enemy hath of a Ship moored out of the Stream.

1. In approaching, the Enemy is in no Danger of being raked fore and aft; though according as the Land lies, a Ship may be so moored out of the Stream, as to rake the Enemy in his Approach.

2. The Enemy's Men are not much exposed in mooring; for it is but dropping his Anchor, and he may veer along your Side; or, if you lie thwart the River, across your Hawse: this, as the River drenches along, may likewise be altered by riding in the Wake of a Point; for should the Enemy drop his Anchor before he be about the Point, he cannot veer along-side, and if he let go his Anchor after he is about the Point, he may be a-stern before he is brought up.

Lastly, The Advantage a Ship out of the Stream hath over the Enemy.

1. A Ship moored out of the Stream, is in no great Danger of Fireships driving Aboard: and so far as my Memory extends, says Mr. Park, Page 221, I remember not one Instance of the *French* grappling a Ship in an Harbour, (before they left the Fireship) while the Ship attacked was in a Condition to make Defence, and her Company on Board.

2. A Ship thus moored having her Cables shot, is in no Danger of driving, if, as it often happens in Engagements, it proves Calm.

3. In being moored out of the Stream (unless the Wind unluckily favour) the Enemy cannot be thwart your Hawse, unless he tows thither with his Boats, and then they and their Crews are exposed to your Cannon, which may prove fatal to the Enemy, unless they have a great Naval Force to countenance the Attack, and assist the Ships engaged with their Boats; but a prudent Commander will never attempt it, for should the Boats be disabled, and their Crews disheartened, a Retreat may be impossible for Want of their Assistance.

II. *The Advantages and Disadvantages considered in Respect to the Wind.*

NEXT to the Stream is to be considered the Wind, but that being variable is dangerous to be complied with, (except in the Trades) for having fortified the Place where the Ships are moored, it may prove of ill Consequence to forsake your Fortifications for the Wind; for though your Ships may be easily removed, yet your Works upon the Land cannot, without a Repetition of your Labour, and something added, by transporting your Cannon, and demolishing your old Lines; unless you have Hands enough to entrench in all Places where Advantages offer in respect to the Wind.

And in respect to that, we will consider the Advantages and Disadvantages to Windward and Leeward.

Those to Windward are,

1. In this Position you are free from the Smoke, the ill Consequence of which was spoken of before.

2. If you shoot the Enemy's Moorings he will drive a-shore to Leeward, then must his Boats be exposed to your Cannon in carrying an Anchor to Windward to heave off, which if the Boats lay to pass, yet he will be raked fore and aft as he heaves; and if your Shot take place, they must do a considerable Deal of Damage among his Men, standing

thick at the Capstern : But I rather incline to believe that the Ship so grounded would never come off.

3. Again, if you are moored to Windward, your Cables are covered by your Ship, and may be seized to Clamps and Cleats nailed to the Side from the Enemy, and so your Ship may be secured in her Moorings against Random Shot : And this ought to be provided for by Commanders, for preventing the only Disadvantage that attend Ships moored to Windward, which is,

That if their Cables be shot, they drive out upon the Enemy, or swing Head at Wind ; if the former, they may be boarded by the Enemy's Fire-ships, or Ships of War, and then as before observed, your Forts can no Ways be serviceable, but may be a Prejudice to you instead of the Enemy : If the latter, the Enemy rakes you fore and aft ; but perhaps neither of these may happen, and the Ship may drive to Leeward, the Disadvantages of which Position we shall now mention : And,

1. If you are moored to Leeward, the Enemy's Fire-ships may be sent on Board, notwithstanding all Opposition, unless some Shoal, or the like intervene.

2. If under this Position you shoot your Enemy's Cables, he not minding to cover them with his Hull, and he drives a-shore or upon you, covers his Boats with his Hull, while they carry an Anchor to Windward and heave off.

3. Your Anchors lying to Windward, should the Enemy shoot your Moorings, you will swing a-head to Wind, and in that Position he will rake you fore and aft ; and if you go to carry out an Anchor, to heave up your Broadside against the Enemy, he will have too great an Advantage of your Boats. Some may imagine an Anchor may not be carried out, only a Spring clapped upon the Cable ; but perhaps you will be too near the Shore for that.

III. *The Advantages of the Land considered, in mooring Ships.*

HAVING given some Hints for the Mooring of Ships in Respect of the Wind and Tide, we will now consider what

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what Regard is to be had to the Land. And I do esteem, says Mr. *Park*, with Submission to better Judgements, the Wake of a Point, or an Island the most proper Places in a River; which is preferable, cannot easily be determined, because of the various Situation of Places, and the Force of the Enemy. If you are like to be attacked by a considerable Number of Land Forces, an Island is the best Place to fortify; because Nature has surrounded the Place with a Ditch, so that if the Soldiers advance, it must be in their Boats, and the Enemy can promise themselves but little Success in attempting to storm that Way: For Men coming out of a Boat cannot march Rank and File, on the contrary, some tumble down by the Boat's striking the Shore, others by her rocking; and at their Landing, the Unskilfulness of the Soldiers adds to their Confusion, for four of five stepping upon the Boat's Gunnel, brings her down upon the Bilge, and as they jump out, eager of the Battle, over goes the Boat upon the other Bilge, the Men tumbling down perhaps with their Firelocks in the Water, and before they can be up, the others are advanced some Paces; besides, being wet in Landing, they cannot be so active as at other Times: Now what can offer more advantageous to the entrenched Enemy, than Men in this Confusion within Shot of their Works, they may be destroyed before they can be brought into Order.

But if no strong Attacks by Land are feared, a Point is best, because of laying the Boom: Now should that be forced, (which must be upon the Flood) before the Fire-ships can be on Board a Ship thus moored, she will be hurried by the Tide beyond; and if the Place any Way favours your Ship, it will be found impracticable to Board a Ship thus moored with such a Wind and Tide as the Enemy must have to force the Boom, unless he exposes his Boats in carrying out an Anchor to warp over, the ill Consequence of which has been mentioned before; or some unaccountable Accident intervene.

It may be objected, that the Ship's Broadfides cannot be brought to bear upon the Enemy when coming to force the Boom, and that they may be battered over the Point.

In

In Answer to the First, it is no Matter whether the Broadfides do or not, because if Time will permit, it is proper to get all their Guns a-shore, except those of the smallest Nature, which may be put down upon the Lower-Deck, which may serve to flank the Boom.

In Answer to the Second, the Enemy will have an uncomfortable Lying, to batter the Ships over the Point, because of the Fortifications on Shore, But this is to be understood of five or six Ships, not of a Fleet; for then the Wake of a Point will not hold them.

As for Rivers that have no Points or Islands; if such be, they must get, if they can, under the Wake of a Shoal, and fortify there; or if none, as well as their Judgment will direct; for it is impossible to give Directions in all Cases.

IV. *How to set up a Boom.*

THE only Invention to keep an Enemy out of a River, is, by stretching a Cable thwart its Mouth, and to that lath Yards, or Top-masts, &c. to swim or float it: Without this a Fort is but of little Service, and an Enemy may at his Pleasure pass it with the Help of a good Tide and a leading Gale of Wind: As it therefore has been found that neither Forts nor Castles can stop the Enterprizes of the Brave, they have invented these Booms; though as they are made, they have been found but of little Service, and as often forced as attacked. This, very probably, may proceed from the little Care that is taken to hide the Cable, which if once cut, the whole Boom is useless. The best Way therefore to prevent that, is to cut down a Number of Batlings or Spars (if there be a Wood near) about 20, 30, or 40 Feet long, more or less, and 5, 6, 7, 8, 9, or 10 Inches Diameter: Having a sufficient Quantity of these at Hand, and two Sheet-Anchors in two Long-Boats, moor them in the Place you design your Boom shall begin: Then bend two Cables to these Anchors, and around them place your Spars or Poles, frapping on each with Ratling Stuff, (or better, with larger Rope) 'till the Boom is 7, 8, 9, 10

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or more (according to the Number of Men) Feet in Diameter, the Cables being in the midst; then take some Iron Hoops, and riveting them together, line the Boom, driving through the Hoop into almost every Spar a Nail. After you have wrought a good Birth from the Anchors, drop them, and continue your Work till you are near the Edge of the River, then over all lash your Spare-yards and Top-masts with your Top-chains, as far as the Channel goes, the remaining Part being wrought as you began, drop two more Anchors.

To that Part of the Cable in the Channel, that makes the Boom, must Cables be fastened, and over the Clinch let the Batlings or Spars be wrought, near ten Fathoms of the Cables bent to Anchors laid down the Stream, that the Enemy may not cut those Cables. These will be serviceable when the Enemy comes stumbling against it; or if he force it in one Place, the Whole will not be opened. It need not be mentioned how this Boom may be floated to open the River; for if the Place be never so frequented, few Ships can come in while the Enemy is before it; and when he is not there, the Boom is not wanted: However, if it be found convenient and safe to open the Passage, you may trip the Anchors down the Stream, and upon one Shore, then let the Boats upon the Ebb swing down the Stream, that upon the Flood the Boom may be laid, if the Enemy appear in Sight; which must be done the first of the Tide; for upon the Ebb there is no Danger, because if the Wind be right in, an Enemy will not Adventure against the Tide, a Ship makes such wild Steerage, and should she ground, she must lie there till Flood, which may prove fatal from the Shore, or Designs of the Enemy; and against the Wind and Tide the Enemy cannot come in. If the Boom be carried up to the Flood, and the Enemy at the Beninning of next Flood appear, the Boom cannot be relaid 'till the Ebb, and before that the Enemy may have accomplished his Design.

And now the Boom is fixed, we must consider how it is to be laid, which may be in two Respects; First, thwart a River that hath no Windings or Turnings: Secondly, from

a Point to a Bight. Under both we will shew how to erect Fortifications to defend the Boom, and at the same Time to protect the Ships.

V. How to lay the Boom and erect Fortifications in a strait River.

L E T the River be ABC, the Entrance G, and suppose the Wind blows chiefly from B to A. Now if the Boom be laid thwart this River, the Ships with a leading Wind, will run right against it, and so hazards its breaking, by striking it with a Force that comes direct: Whereas could the Bottom be laid in such a Manner, that the Ship must take it upon her Bow, the Blow would be diverted by the Ship's casting.

This is only to be done by stretching the Boom thwart the River sloping, as from B to A, the lowermost End, which is next the Enemy, being upon the Weather Side. It being laid thus, the Enemy cannot possibly run right against it; for the Ship must be near before the Helm be put down, to bring the Ship's Head to the Boom, and then it is ten to one whether she comes too so nicely to take the Boom. (*Fig. 4.*) Not to mention the Mistakes in a Confusion committed by the Man at the Helm, and he upon the Cond, nor the Smoke; for if all was quiet, I take it for granted, that the Ship would cast along-side the Boom. Then a Battery of good Cannon being erected at A, will take him fore and aft; and another from D to B, to play upon his Broadside with Double-round and Partridge, must make a great Slaughter among his Men cutting at the Boom. But should he not swing along-side the Boom, but lie Stem to against it; then will the Battery at D rake him fore and aft, while A plays upon his Broadside.

What Form these Works must be on, is left to the Judgment of the Designer, who, (if he approves them) may follow those of the Figure.

The Ships must be moored in an Half-moon, with their Broadsides flanking the Boom, as in the Figure. And several old Ships, or if the worse sort, may be sunk as soon

Fig. 4.

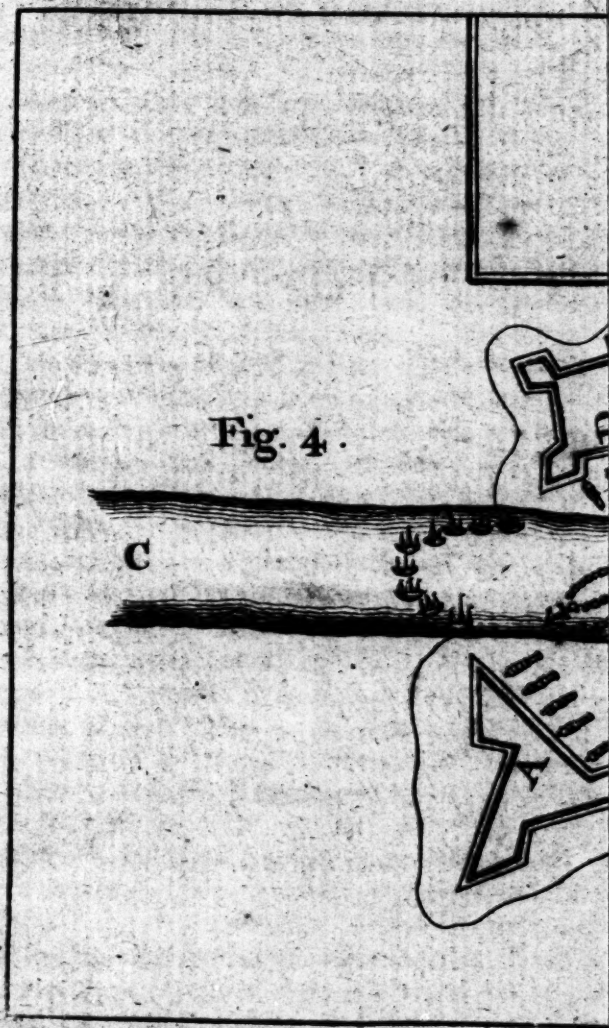


Fig. 4.

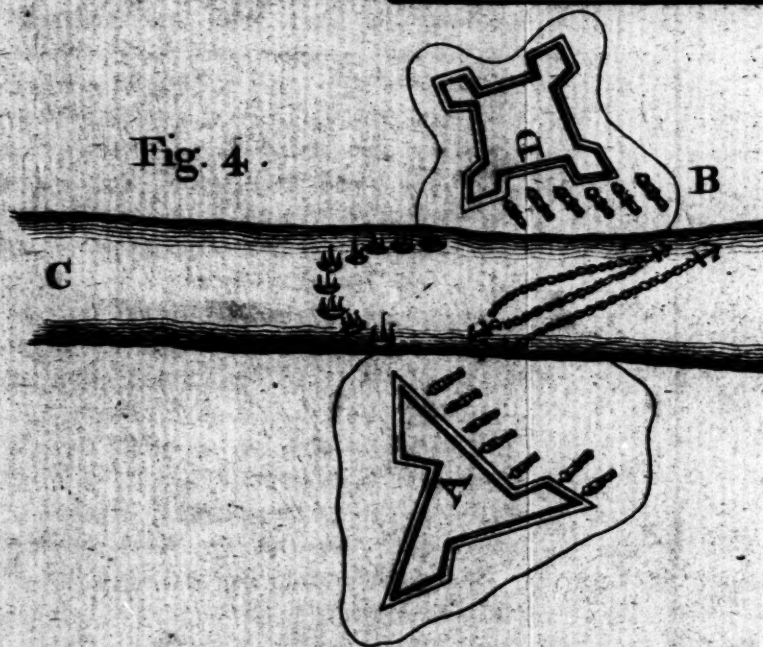


Fig. 6.

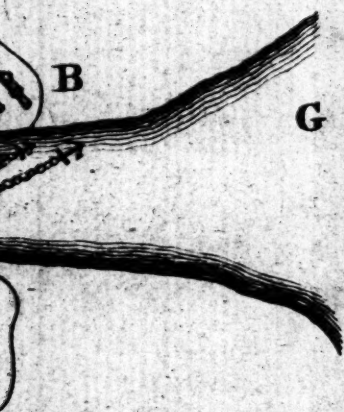
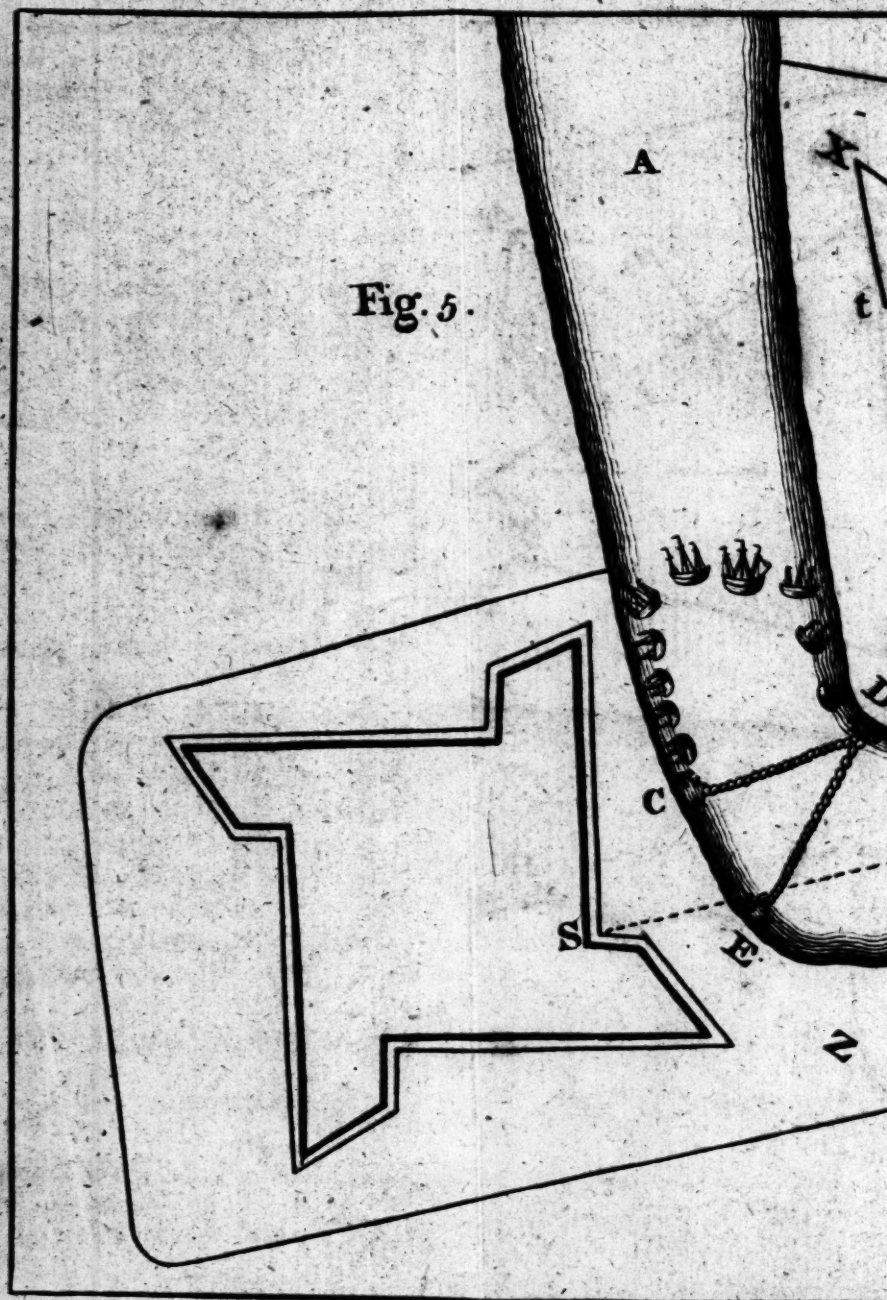
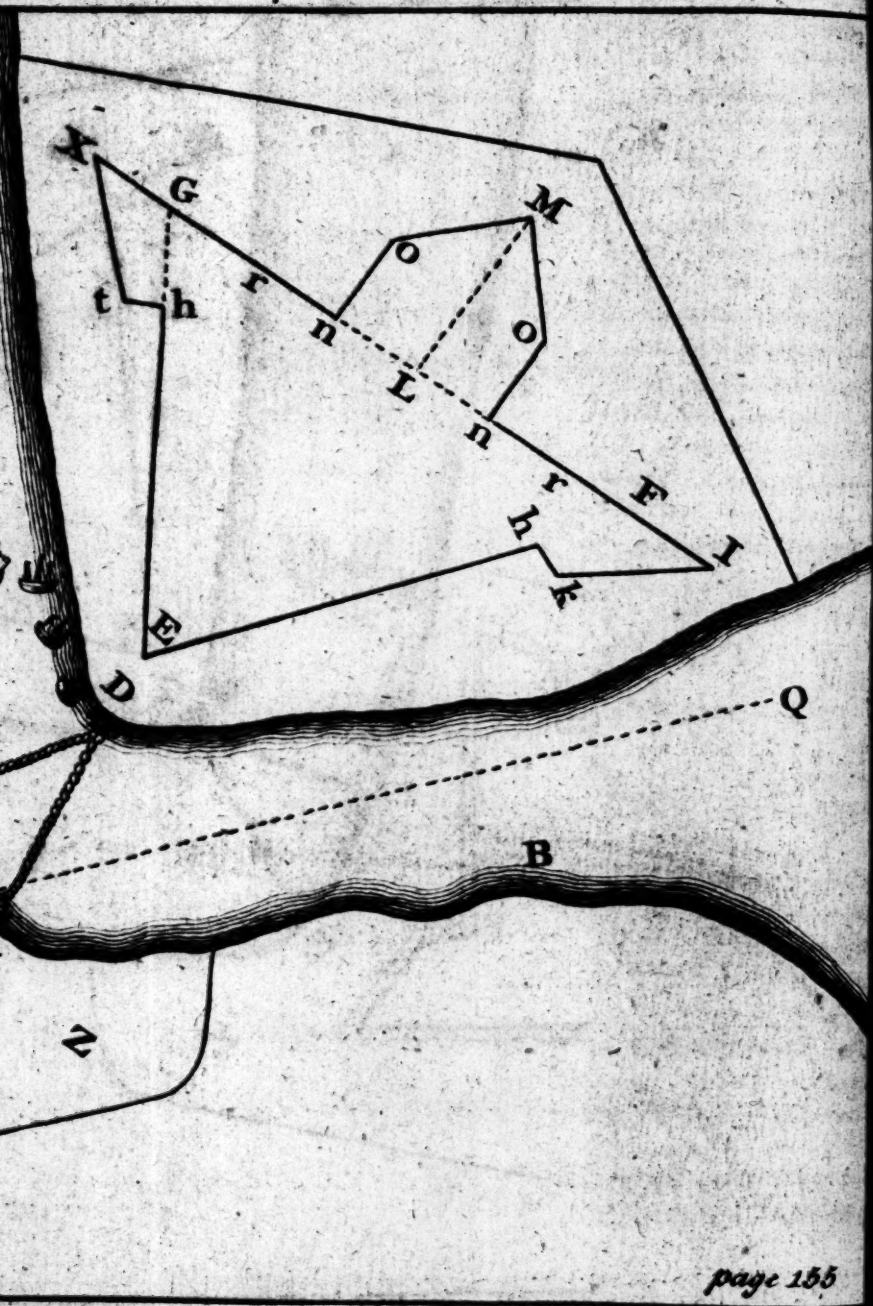


Fig. 5.

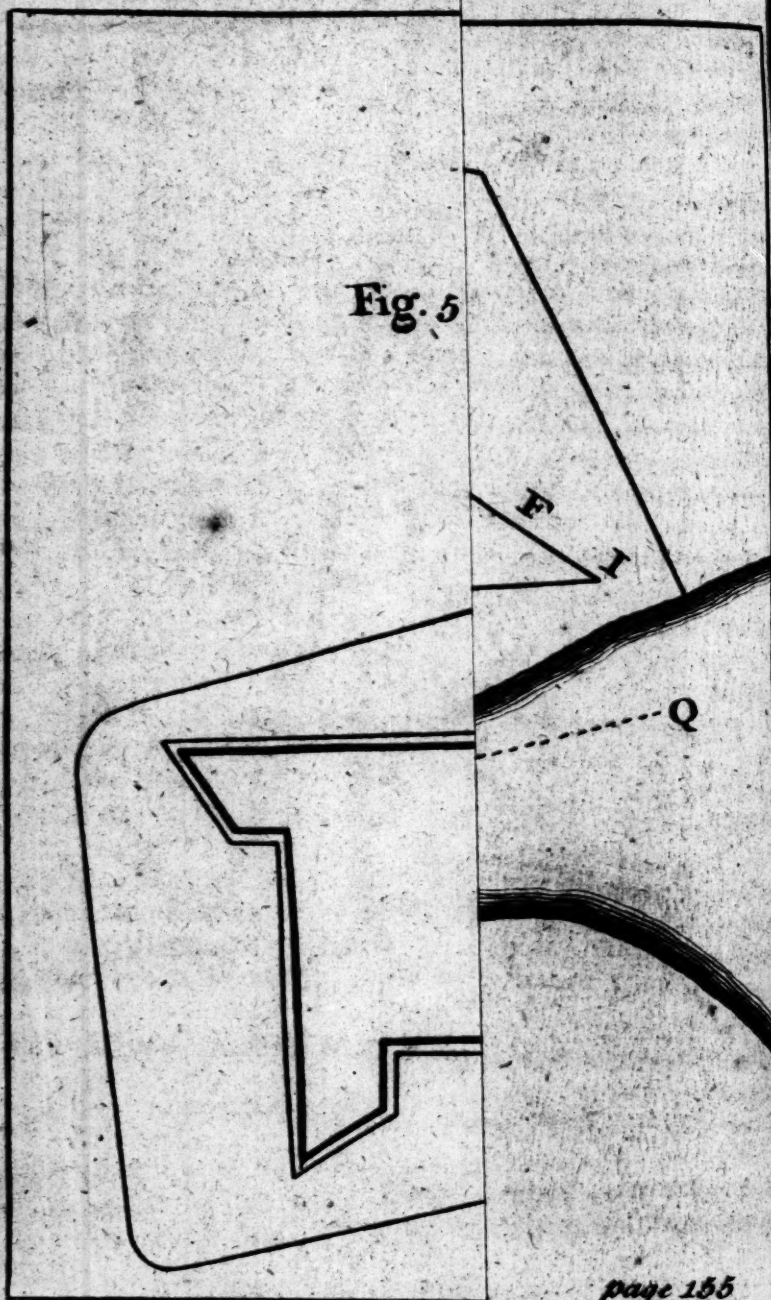




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as the Castle D makes a Signal that the Boom will be cut : For this Purpose they must have large Scuttles ready cut ; but by the Way, it would be extraordinary Conduct to have a small Boom to divert the Enemy, that the Ships may be sunk in the Channel before he Boards them.

As for the rest of the Ships they must be left to the Judgment of their Commanders, and if no other Remedy, they may get a-shore to Windward if they can, and there defend themselves from the Enemy's Boats and Fireships. If the whole be seriously considered, the chief Strength will be found to consist in the Boom : If therefore a double, triple or four-fold Boom was laid, it would make the Place so much the stronger : And in stretching these, the Trouble of Anchors may be spared, by making your Cables fast to the first, and so let them float in a Bight, and by a small Anchor ride upon the Ebb, to keep clear of the other.

VI. To fortify upon a Point.

A Point, as was observed in Art. 3. is the best to protect Ships from the Enemy ; and a Boom laid from a Point to the opposite Bight is the properest for obstructing the Enemy's Fireships, and Ships of War : And Fortifications can be best erected there to gall the Enemy, as may be evident by the following Example, without a Train of Arguments, Fig. 5.

Suppose the River ABQ is to be fortified : From the Point D to the opposite Bight E, lay two Booms DC, DE, and it is ten Thousand to one if a Ship answers her Helm so timely in Bearing or Loosing about the Point, as to take with her Stem, and if she smite it with her Bow she casts. Upon the Point D let a Fort be erected ; if the Point be acute it may be Triangular ; if Right-angled, it may be Square ; but if Obtuse it may be a Pentagon : Take an Example of the first.

About four Fathom from the Point, as at E, draw two Lines EF, EG, parallel to the Bank of the River, and 100 or 500 Feet or more : Join FG, and divide EF and EG

EG into five equal Parts at h, one-fifth from F and G ; raise Perpendiculars k h, t h, each 14 Feet for Flanks ; where may be planted Faulconets in each, to gall the Enemy if he attempts to storm the Place in Boats : Let FG be extended both Ways within eight Feet of the Water's Edge, to I and K, and then draw the Faces I k, X t : Upon these and the Curtains h E let your Cannon be planted as thick as possible.

For the Land Side I, X, it will be necessary to have a Bastion in the middle of the Rampart, and that will be far better than compleating these disproportioned Semi-bastions ; besides it will be nearer the Angular-Points of the Semi-bastions, than the Whole if compleated will be to one another, and consequently the Shot more serviceable : It is thus made ; divide I X into two equal Parts in L, and rise the Perpendicular LM, divide LI, LX into four equal Parts, three-fourths from L raise the Perpendiculars n o equal to NL ; lastly, laying a Ruler over o and r two-fourths from I or X, draw the Faces O M.

The Point being fortified, draw in the middle of the River QS parallel to the Side of the Fort ; at S erect a Square, that may rake the Enemy fore and aft, if he lies to batter the Works upon the Point ; as also when he approaches the Boom.

Besides, you may have a Battery of Guns at I, to gall the Enemy in his Approach ; and another at Z, round which next the Land must be cast up Lines.

As for the Ships, they must be moored in an Half-moon, to batter the Enemy when he attempts the Boom.

If the Commanders judge other Works necessary, they must erect them according to the Situation of the Place.

VII. *Fireships may be placed between the Booms.*

The Manner of managing them.

BETWEEN the first and second Boom, let some old Ships be placed and fixed up for Fireships. From each

let

let two Hawfers be carried a-shore, one to each Side, and let two Cramps be fixed up, that as soon as the Enemy has passed the first Boom, these Ships may be set on Fire, and heaved in the Way, and then nothing can hinder the Enemy's Destruction. The Boat may pull a-shore as soon as Fire is set under Covert of the Ship without any apparent Danger; for such will be the Enemy's Consternation, that they will soon leave Firing. The Hawfers may be fastened to Clamps nailed below the Water-line, that they may not be burnt, nor the Enemy cut them. Having boarded the Weathermost Ship, you may heave your Fireship and she on Board the Leewardmost. More Instructions are needless to our Seamen, who know how to manage this as dexterously as any Men in the World.

VIII. *Rafters, Stockadoes and Pallisadoes, how used.*

IF there be good Store of Timber at Hand, you may drive Stockadoes, (*i. e.* great Trees into the River,) else before your Booms ride Rafters of Trees, with good Anchors, making your Cables fast, so as the Enemy cannot come at them to cut them: These will be of singular Use in putting the Enemy into Disorder, if Rubbish be laid upon them and Fires be made, when the Enemy appears in Sight, which will put him to some Consternation; and perhaps cause him to chop to an Anchor, and lose Time or his Tide; and thus you may do every Flood; but you must be mindful that the Smoke be not great if to Windward of your Works.

There is another Use you may put these Trees to, that is for Pallisadoes, which must be set in the Middle of your Ditch if it be dry, or upon the Foot of the Counterfarp; but upon the Water they will be of great Use, if there be but two Landing Places, and those but small, or before your Fortifications, where you may set some, whose Tops shall be even with the Surface of the Water when the Tide is at the lowest; and some nearer in, a Foot and an half higher, and so 'till you come within a Foot of the Surface at High-

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water.

water. These may be about five Feet high, and that they stand firm, you may set them sloping towards the Enemy, and nail on Braces, (*Fig. 6.*)

IX. *To make Gabions before your Cannon.*

IF your Works are to be erected by Seamen, they will scarcely be over-curious in the Profile, and indeed it will require more Time and Hands than they have to spare; however, towards the Land they must at least make their Ramparts above Man's Height, and Cannon Proof, which with their Ditch will be indifferent strong; the Parapet may be four Feet high. Next to the Water, Nature has in most Places made a very good Ditch, and this may serve if Time will not permit to finish your Work; yet for the Security of your Men, between your Guns drive Stakes into the Ground, and between them work green Boughs, as Sailors pass the Ball when they make Mats; those filled with Earth will serve as Corbeils or Gabions. The Earth you fill these with may be dug from between them, or opposite to the Vacancy, so as the Corner of the Hole may be at the Corner of the Gabion, and then you will have a Line of Ditch-work and Breast-work. They may be seven Feet high, and Foot-banks may be erected on the Land-side for the Men to fire over. If you have Time to finish your Works, this Provision must be made before your Batteries under your Works.

X. *Maxims to be observed in an Harbour, when you begin to fortify.*

1. IF there be an Hill within Cannon-Shot of your Works, it must be secured by a small Sconce, erected upon its Top, where ought to be placed some Cannon of a small Nature.

2. If a Wood be within Cannon-Shot of your Works it must be cut down, and the Timber employed about your Works.

3. The Commander must inform himself before he makes his Works, whether the Enemy, by cutting any Bank, &c. can lay the Place under Water.
4. Let a Spring of fresh Water be secured by a Sconce, and a Guard of resolute Fellows.
5. Let your Ships be moored so as they may rake the Enemy fore and aft when he batters your Works.
6. Let not your Ships be moored before your Fortifications.
7. Let not your Ships be posted near any Town or Village, unless absolute Necessity require it to cover the Town, or the Thing be unavoidable, lest the Shot and Bombs that miss you destroy the Town.
8. Let not one Ship touch another when moored, that the Enemy may be obliged to burn each Ship single.
9. Let the Ships be unrigged, and the Shrouds stript from the Mast-head, that the Graplings of Fire-ships may have no Hold.
10. Let all the Buoys be taken from the Anchors that ride the Booms, that the Enemy may not trip them.
11. Let all the Land-marks be removed, that direct their Steerage into, or up the River.
12. Unless the Cargo be a-shore, let no Man's Chest nor Cloaths (from the Captain to the Swabber,) be carried out of the Ship.
13. Let your Sails be carried a-shore for Tents, and most of your Gunners Stores, that if the worst happen to your Ships, your Forts may have Store of Ammunition.
14. Let not your Powder be altogether in your Forts; that if an Accident happen, the Whole may not be destroyed.
15. Let Out-guards and Centinels be placed upon and near the Banks of the River; and let some each Night in humble Boats armed pass down the Stream to watch the Motion of the Enemy; and in this the Commanders are to act the Part of careful Generals to prevent Surprize.

INSTRUCTIONS *for a Captain's Clerk,
or the Method of keeping the Books and Accounts of
His Majesty's Ships of War, in Order as they are
passed at the several Offices, according to the several
Articles of the Printed Instructions annexed to the
Captain's Commission, viz.*

Clerk of the Acts and Comptroller's Office.

General Muster-Book.

ARTICLE 7. Your Captain's Commission to be seen at the Comptroller's Office.

Art. 11. Not to bear more Men than your Complement on your Muster Book, nor Supernumeraries without an Order; your Supernumeraries to be entered by themselves at the End of your General Muster-Book.

Art. 13. The first Column on your General Muster-Book is the Number or Place each Man stands on according to his Entry, and is generally marked at every fifth Name; the next two are the Day of the Month and Year of every Man's Entry on Board; the fourth, from what Ship or Place you received your Men; or in the Place of these, whether pressed, or Volunteers; the fifth, is for the Number and Letter which is marked on the Ticket to prevent Forgery, Copies whereof are always kept at the Navy-Office, the Tickets being cut from the Copies after the Manner of Indentures; the sixth Column is for the Men's Names and Quality, as Able, Ordinary, or Midshipmen, &c. the seventh is for Discharge, of which there are several Sorts, and must be distinguished with the several Letters.

Proper

Proper Marks for
the Discharges on

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Muster

| Proper Marks for the Discharges on the Muster-Book | Letters proper for each of them as follows: | | |
|--|---|--------|---------------|
| | Discharge ———— D. | Reason | Per Order. |
| | Dead ———— DD | | Preferment. |
| | Run ———— R | | Request. |
| | Not returned from the Hospital in 28 Days. | | } Dsq whither |

The Eighth and Ninth Columns are for the Day, Month, and Year, on which each Man was discharged, dead, dsq, or run.

The Tenth Column is the Reason why each Man was discharged, to which Regard must be had, and exactly set off, whether per Order, Preferment, or Request, &c. there were formerly other Reasons, such as Infirmary, or turned over to other Ships, Sickness, old Age, &c. and those last were by Order of Parliament paid their full Wages in one Month's Time after their Tickets were produced at the Navy-Office, but this is now made void.

Art. 13. If any Man is discharged into another Ship, that Ship's Name must be mentioned (in the Column of whither) if Run or Dsq, the Place or Hospital where must be named in the said Column. The three following Columns for the Slop-sellers therein named are designed for the more regularly distinguishing what is due to each Man, and must be very carefully set down against the Mens Names to whom such Slops were issued, in the proper Column of that Slop-seller that supplied them.

The Columns for Beds, Tobacco, and Dead Mens Cloaths are designed for the same Purpose, and must be set off in the same Manner; the Particulars of all these are kept exactly in your Slop-Book, from which you transmit the Total of the Prizes into your General Muster-Book, and Monthly Muster-Books; but Care must be taken that those Issues were in the Time of your Muster-Book.

The twelve Columns on the other Page of the General Muster-Book are for the twelve Months in the Year; you

find they are sub-divided into four small Columns or Weeks, in every one whereof, according to the Captain's printed Instructions, you are to keep exact prick and cheque upon all who are absent, and the rest to be marked with the Muster-Letters, noting always the Day of your Muster on the Top of each of your small Columns, and all the Letters of the Alphabet are used for mustering the Ship's Company, excepting D, Q, R, S, which signifying Discharge, Quarter, Run, Sick on Shore.

Your Men absent with Leave to be marked thus——✓

Without Leave———

Sick on Shore———^{fs}

You must express on the Margin, or second Column, the Time of pressed Men or Volunteers appearing first on Board, because they may be entered and victualled on Board your Tender perhaps a Month or more before they appear on Board the Ship.

What Men you lend to other Ships you must check thus, viz. ✓, and set off in the Margin, third Column the Ship's Name they are lent to, and the Day they went from the Ship; and when they return the Day must be mentioned in the same Columns; the same must be done for Men Sick on Shore; but remember to mark your Sick (as above) thus ^{fs}; if your Sick return not from the Hospital or Sick Quarters, before the Expiration of thirty Days, they must be ^{Dsq}; and re-entered on the Day they return, at which Time you must strike out the Q. and set in the Column (of whence) the Number he stands in his former Entry, and on the first Entry in the Column (of whither) the Number on his last Entry.

You must have an Abstract on your General Muster-Book, the Number of Men Borne, Mustered, Chequered, Sick on Shore, Number of Marines, Number of Supernumeraries; the Marines are always included in the Complement of Men; the Number of Mustered, Chequered, and Sick on Shore, makes the Number Borne.

On the Front of your Book you must mention the Day of your Beginning Wages and Petty-Warrant, Place where, and Time of going to Sea, Provisions, &c.

You

You must mention there likewise the Number of Men allowed for your Complement, and if altered at any Time the Day must be set down, and to how many reduced or encreased.

All this must likewise be exactly observed on your Monthly Muster-Books, they being perfect Copies of the General Muster-Book: On the latter Part of your General Muster-Book, as well as your Monthly Books, you must never omit giving an Account of Men run, how they left the Ship, with your Captain's Opinion whether they ought to be relieved or not.

Article 16. To be very careful in right rating the Ship's Company, and not to state more inferior Officers than are allowed.

20. Tickets must be made out of all discharged and dead Men, noting to whom you deliver them, and they must be all entered on your Ticket-Book, with the Number and Letters, set off exactly on your General Muster-Book, as well as on your Ticket-Book: On the Front of this Book you must keep an Account of what blank Tickets you receive from Time to Time, mentioning the Number expended, and likewise what remains.

25. Your Account of Sick Men must likewise be kept on another Book, wherein must be particularly mentioned the Number on the Ship's Books, Time when, Place where, or Hospitals where such Men are sent, with the Day of Discharge from, or Return to the Ship again.

28. Your Issues of Slop-Cloaths, Beds, Tobacco, and Dead Mens Cloaths, must be charged on your Slop-Book to the Person to whom they were issued, and the Particulars exactly set down with the Prices, each in proper Columns; that a clear Distinction may be kept between the Slop-sellers Beds, Tobacco, and Dead Mens Cloaths, the Day, Month, and Year of your Issues must always be mentioned; instead of an Alphabet to the Ship's Book, the Mens Names, with their Numbers, on the Muster-Book, are to be set down successively as they stand there.

At the End of the Slop-Book you must have a particular Account of your Dead Mens Cloaths, when they were sold, to whom, with the Number of each Man on the Muster Book and Slop-Book.

29. Your Purser to make out six Pay-Books, that no more Names be on the Page than another, that all the six Books, every Page of each End with the same Man's Name, that your Slop-Cloaths, Beds, Tobacco, and Dead Mens Cloaths, (issued in the Time your Pay-Books were made for) be carefully set off thereon.

Your General Muster-Book, Monthly Slop-Book, and all Tickets are signed by the Captain, Master, Purser, and Boatswain.

Your Sick-Book and Ticket-Book the same.

Your Marines, though Part of the Complement, to be entered by themselves on your General Muster-Book and Monthly Book, and a separate List of them, (besides that on the Monthly Muster-Books) to be always transmitted with your Monthly Books, in order to be sent to the Secretary of War's Office for making up the Regimental Rolls, they being always paid in the same Manner with the Army; this List must be always signed by their own Chief Officer on Board, if but a Serjeant.

The Supernumeraries to be entered likewise by themselves, at the End of the General Muster, and Monthly Books; and if any Supernumeraries for Victuals only, they ought to be entered by themselves.

Comptroller of the Victualling Office Accounts of Provisions on Board.

ARTICLE 4. That there be no Neglect in sending the Provisions on Board, &c.

6. The Captain's Clerk to keep an Account how the Provisions came on Board, and that you may be the more able to do it, it is necessary you be always at the receiving the Provisions, examine the Bill of Lading, that it agrees with the Contents received, and when the Purser Indents, you are to demand a Copy thereof,

7. The

7. The Captain must certify that no Sea Provisions were expended in Petty-Warrant.

8. To keep an Account of the Quantities of Provisions from Time to Time received on Board, and by what Vessel.

10. The Captain to sign all Books and Papers relating to passing the Purser's Victualling Account, and to take a Certificate from the Purser thereof.

28. To certify that the Purser did not embezzle or sell the Provisions, Biscuit Bags, or Iron Hoops.

41. The Purser is to certify that the Captain did not command him to victual Men, or issue out Provisions, without a Warrant under his Hand.

47. That at the Removal or Death of a Purser, a careful Survey be taken of the Provisions by two or three Purser, and likewise every Thing else in his Charge.

The Purser to certify that he was neither suspended nor confined; some Captains require the Certificate at the End of every Month.

Additional Instructions.

THE Captain to certify that all Provisions mentioned in the Purser's Indents, as well as what was otherwise supplied, were all received on Board, such Part only excepted, for which he had Credit; that he did not receive any Money for Beer or short Provisions on Credit or otherwise, and that there were no Provisions lent.

The Captain to sign the Account of Provisions received on Board.

The Captain must produce a Certificate from the Commissioners of the Victualling, that no Bills or other Accounts stand charged against him during the Time he commanded any of His Majesty's Ships, and that before he receives a general Certificate for the Payment of his Wages.

Surveyor's

*Surveyor's Office.**SURVEY-BOOK.*

ARTICLE 3 and 9. The Boatswain's Part of the Survey-Book, contains the Dimensions, Quantity, and Quality of the Rigging, and all the Materials belonging to it, with an Abstract of all Stores supplied, lent, or returned; it contains likewise an Abstract of the Boatswain's and Carpenter's Monthly Expence of Sea Stores; the Boatswain's Part of it is to be taken Notice of in three several Places, viz. the Rigging Materials, appertaining to the Rigging, and the Sea-Stores.

When any Part of the Rigging is decayed, and not fit to remain in its Place any longer, it is expended and converted to another Use, and therefore must be carefully set off as expended against its Name, and that Part of the Survey-Book, in the proper Month that Expence was made.

The Materials must likewise be done after the same Manner, especially the Blocks; but when Shivers, Hooks, Thimbles or Staples are expended, then you must for the first put over it, 1 Sh. 2 H. 3 Th. 4 St. to distinguish them from the Blocks, And, 3. The Expence of Sea Stores to be exactly mentioned every Month, as expended, against the Names of the Stores; the total Expence of each Specie set off, as well as the Total of your Stores lent, and returned at the End of your Voyage, when you fit out again, or before you pass your Accounts, and likewise what remains to balance your Accounts. If the Twelve Months in your Survey-Book expire before you return home, or refit, you are to transmit the Remains of your Sea Stores into your Supplemental, and to be carried on after the same Manner as the Survey-Book: The Carpenter's Part of this Book is carried exactly in the same Method with that of the Boatswain's Sea Stores.

The last Page of the Survey-Book is designed for a particular Account of the Loss, and the extraordinary Expence

of

of great Stores; such as Cables, Anchors, Sails, Masts and Top-masts, Yards, &c. the Occasion of such Loss and Expence must be particularly mentioned, whether by hard Gales of Wind or other Accidents, the Latitude, Place where, Bearing of the Land, &c. an Example whereof you have in the Boatswain's printed Expence-Book.

Articles 4, 5, and 6. To keep an Account of Stores brought on Board, and committed to the Custody of the Boatswain and Carpenter.

It is your Duty to see them received on Board, to take a particular Account thereof, and to examine those Officers Indents, if they agree with the Quantity of Stores received.

9. 45. Your Captain must certify no Stores lent; if any, to mention them.

10. To keep Counter Books of the Boatswain and Carpenter's Expence of Stores.

23. To certify no Stores were bought; if any, to mention them.

If your Captain is obliged in a Foreign Country to buy Stores of any Sort, a particular Care must be taken to get sufficient Receipts, which must be produced as his Vouchers at passing your Accounts.

40. To certify no Shrouds or Back-stays shifted, or Top-masts lost; if any, to mention them, Time, Place, and Occasion.

43, and 47. If your Boatswain or Carpenter die, or are removed, the Remains of their Stores must be carefully surveyed.

A Certificate must be produced of the Time of their Death or Removal, with a Report of the Survey.

N.B. This Certificate you give at the Ticket-Office, to be given with your Ticket-Book and Journal.

If no Survey-Book was left by your Captain's Predecessor, your Captain must certify the same.

The Survey-Book to be signed by the Captain only.

The Boatswain's and Carpenter's Expence-Book to be signed by the Captain, and the Boatswain's Counterpart by the Master likewise.

Though

Though it is not necessary, yet it is common to have the Master and Boatwain sign, after the Captain, to the Captain's Counterpart of the Boatwain's Expence; and the Carpenter to sign the Captain's Counterpart of the Carpenter's Expence.

Office of Ordnance.

A Counterpart of the Gunner's Expense of Stores signed by the Captain only.

Admiralty-Office.

A Journal of the Proceeding of the Ship signed by the Captain.

Clerk of the Acts.

ARTICLE 2. To give a Weekly Account of the Ship's fitting.

13. The Qualifications of the Muster-Books mentioned in the Comptroller's Certificate.

20. An Account of the Expence of Tickets.

45. A Journal of the Proceedings of the Ship.

46. The Ticket-Office, to certify what Officer is dead.

The Captain's Certificate, which relates to the Sixth and Twenty-eighth proceeding Articles, mentioned in the Comptrollers of the Victualling Certificate, and likewise in the Additional Instructions.

Captain's Certificate to the Purser.

I Do hereby certify the Particulars following, relating to
His Majesty's Ship, under my Command, between the
Day of 178 and the Day

that the Complement of the said Ship
Men all the Time of my Command; if al-
tered, insert the Time and Number of Men.

3. That

3. That the said Ship's Company was in Petty-Warrant from the Day of to the Day and began Sea-Provisions the next Day, and continued all the Time of my Command; no Sea Provisions expended in Petty-Warrant (except the Particulars following) if any expended, say the Reason, for Want of a timely Supply, which the Purser hath accounted for with the Victualler.

4. The Purser hath continued in that Employment all the Time of my Command, and hath not sold or embezzled the Provisions, Casks, Hoops, or Bags that were ordered him, if any other Purser, his Name, and when succeeded the other, dated on Board the in this Day of

The Purser's Certificate to the Captain relating to the 10th, 41st, and 47th Articles.

THESE are to certify the Right Honourable the Principal Officers and Commissioners of His Majesty's Navy, that Captain A. B. hath signed all Accounts, Books and Papers relating to the passing of my Victualling Account, as Purser of His Majesty's Ship under his Command, between the Day of and Day of particularly for the Entry of Men and Expence of Cask, and has not at any Time suspended or confined me, nor ordered the Issuing of Provisions upon any Account, but by Warrant under his Hand, nor done any Thing in Prejudice of my Office, contrary to the Rules of the Navy; dated on Board the Day of

Certificate relating to the Additional Instructions of the Captain.

THESE are to certify that all Provisions mentioned in the Purser's Indents, as well as what was otherwise supplied, were all received on Board, such Part only excepted, for

for which he had Credit; and that he did not receive any Money for Beer, short Provisions on Credit, or otherwise, and that there was no Provisions lent (*if any mention to what Ship, Time and Place*) dated this *£s.*

The Captain's Certificate to the Surveyor's Office, which relates to the 9th, 45th, 23d, and 40th Articles.

THESE are to certify, that no Stores were lent, or bought by me, during the Time I commanded His Majesty's Ship *no Shrouds or Back-stays shifted or Top-mast lost*; dated the *Day of*

Certificate when no Survey Book is left by the preceding Captain.

THESE are to certify, that no Survey-Book was left by the Right Honourable *K. L. D.* my Predecessor, when he was discharged from His Majesty's Ship *now* under my Command. Given under my Hand on Board the said Ship, at *the* *Day* of *of*

FORMS

The Seaman's Vade-Mecum.

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TICKET.

Captain A. B.

An Abstract of MUSTERS on Board His Majesty's Ship

and the

[illegible]

TICKET-BOOK.

An Account of TICKETS made out on Board His Majesty's Ship
 Commander, between the Day of _____ of _____
 Captain A.B.
 178

| Number on the Ship's Book. | Number and Let- ter of Tickets. | Mens Names | Quality | When made out. | Year | To whom delivered |
|-------------------------------|------------------------------------|------------|---------|-------------------|------|-------------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Note. You ought to be careful not to deliver Tickets to any Person (except the Party,) without they have sufficient Power, such as an Assignment, Letter of Attorney, Will or Administration.

An Account of PAY-TICKETS received on Board His Majesty's Ship
 Commander, between the Day of _____ and the _____ following.
 Captain A.B.

| Time when Supplied. | From what Place. | From whom | Letter and Number of Tickets. | Quantity |
|---------------------|------------------|-----------|----------------------------------|----------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

SICK-BOOK.

РАУБОК.

[illegible]

Ad

An Account of the Receipt of Paper on Board His Majesty's Ship Commander between the Day of

Captain A. B.

An Account of the Return of Carpenter's Stores on Board His Majesty's Ship
of
Captain A. B. Commander, between the

| Time when re- turned. | To what Place. | To whom, or Stores keeper's Name. | Quality. | Quantity. |
|--------------------------|-------------------|--------------------------------------|----------|-----------|
| | | | | |

An Account of the Expence of Boatwain's Stores on Board His Majesty's Ship
Captain A. B. Commander, between the

An Account of PROVISIONS received on Board His Majesty's Ship
Commander, between the Day of

Captain A. B.

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The Seaman's Vade-Mecum.

[illegible]

An Account of PROVISIONS received on Board His Majesty's Ship
Commander, between the Day of

Captain A.B.

A Method how to cast the Weekly Account.

N. B. Your mustered, chequed, sick, gives your Number Borne, which subtracted from the Complement, gives you what you are short of it. Your Officers and Servants, ordinary Landmen and Marines added together, the total Number thereof subtracted from the Number Borne, gives you your petty and able: Your Officers and Servants, petty and able, ordinary Landmen and Marines added together, gives you the Number Borne, the Cook's Servant only reckoned in the Account, he being deemed by the Book of Instructions, though warranted, no more than a petty Officer. Your Sick on Board always mustered, but in casting weekly Account not reckoned, but only taken Notice of it as the Number of Sick on Board. Your Men sent to the Hospital, Hospital-Ships, or sick Quarters, are returned on your Books the Day they are discharged from thence, and victualled on Board the ensuing Day; but Men lent, or with Leave, victualled and returned the same Day they do return. This Account is always signed by the Captain.

N. B. Your Receipt of Provisions on Board, signed by the Captain, Master, Boatswain, Purser; Receipt and Expence of Pay-Tickets signed by the Captain, Ditto of Paper, Supply and Returns of Officers Stores by ditto.

Rule to work a Proportion of Provisions.

For 300 Men for 224 Days, (thus)

Multiply your Number of Men by the Number of Days to be victualled for, gives you your Bread in Pounds, and Beer in Gallons, which divide by seven, the Days in a Week, will give you your Pieces of Beef, Pork, and Quarts of Pease, which divided by four, (the Pease Days in a Week) gives you your Pease in Gallons, which multiplied by three, (the Cheefe Days in a Week) gives you your Cheefe in Pounds; and take the half of your Pounds of Cheefe, be-

cause

cause your Cheefe is always double your Butter) will give you your Pounds of Butter, and Gallons of Oatmeal. And to prove it, divide your Pounds of Bread and Beer by your Men, proves the Days Bread and Beer: Beef, Pork, and Pease divided by your Men, gives Weeks Beef, Pork, and Pease: Your Cheefe divided by your Men, gives Weeks; and your Pounds of Oatmeal and Butter divided by your Men, gives Weeks Butter and Oatmeal,

EXAMPLE.

300 Men.
224 Days..

7) 67200 Pounds of Bread and Gallons of Beer.

4) 9600 Pieces of Beef, Pork, and Quarts of Pease.

2400 Pease in Gallons.

3

2) 7200 Pounds of Cheefe.

3600 Pounds of Butter, and Gallons of Oatmeal.

To prove your Proportion by a Weekly Account, thus,
(for Example)

Divide each of these by 300, the Number of Men.

300) 67200 (224 Days Bread and Beer. 9600 (32 Weeks
Beef, Pork and Pease. 7200 (24 Week's Cheefe. 3600 (12
Weeks Butter and Gallons of Oatmeal.

FORM

The Seaman's Vade-Mecum.

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An Account of IMPREST MEN raised in the Expedition Tender, by Lieutenant A. B. of His Majesty's Ship

17

Day of

this

| Mens Names. | Raised Time when | Year. | Place where | Quality. | Put on Board Time when. | Ships Names. | Number on the Supernumerary List. |
|-------------|---------------------|-------|-------------|----------|----------------------------|--------------|---|
| | | | | | | | |

A Certificate is always given by the Captain to the Officer who raised them, annexed to it, as thus :

These are to certify the Honourable the Principal Officers and Commissioners of His Majesty's Navy, that the Men above-mentioned were impressed by Lieutenant *A.B.* of His Majesty's Ship _____ under my Command, and by him delivered on Board the said Ship _____ at _____ and do find them as above, duly qualified, and fit and able to serve His Majesty, and that I find them neither Foreigners, nor pressed from Protections. Given under my Hand on Board the said Ship _____ at this _____ Day of _____ 178 _____

J. S.

N.B. Seamen may have Slops as far as a Month's Wages in Time of Press, but not exceeding one Month's Pay in Value.

May have Slops once in two Months as far as Ten Shillings Value.

On the Pay-Books the Captain particularly is to note, as on his General and Monthly Books, the Value of Cloaths and Bedding the Men have been supplied with, and also on the Pay-Lift for the two Months Advance.

The Clerk to take Account of all Stores that come on Board in his Time, and likewise of Provisions.

Muste-Books sent every two Months to the Navy-Office.

The Captain, when removed into another Ship, is to leave Copies of Orders with his Successor; and a compleat Book signed by himself; and to send up all the other Books and Accounts under his Charge to the Officers they respectively relate to, in order to the passing his Accounts.

Directions to the Warrant-Officers, as relating to the Captain's Clerk's Instructions.

Boatswain is to pass his Accounts at the End of the Voyage, and to deliver just Accounts of the Expences thereof

to the Surveyor of the Navy, audited and vouched by the Captain and Master, with Account of all Stores he hath been supplied with from other Ships or Yards, or that have been bought by the Captain; or Stores lent or returned. He is to take proper Receipts for them, otherwise he will not be allowed to receive his Wages until his Accounts are paid.

The Carpenter's is the same.

The Gunner is to keep his Book of Expences, and to be careful the Quantity of Stores expended be expressed in Words at Length, and not in Figures.

At cutting up of Cordage into Breechings, he must be sure to get the Captain's Order for it; at the same Time he discharges himself of the Cordage expended, he is to charge himself with the Breechings into which it shall be converted; the like Method is to be used in the Conversion of any other Stores: He is to pass his Accounts at the End of the Voyage, to deliver them into the Office of Ordnance, audited and vouched by the Captain only, not to receive his Wages without a Certificate from the Board, that he has discharged his Trust faithfully; he is to make up his Accounts half Yearly, that is, an Abstract of his Accounts of Receipts, Issues and Remains; viz. at *Midsummer* and *Christmas*, to deliver the same signed by the Captain, who is to audit the said Account, and to send them up to the Office of Ordnance certified by himself.

Captain is to be a Cheque on his Officers, and to keep Counter-Books of the Expence of the Ship's Stores, to audit the Accounts of Officers Stores once a Month, to sign all such Allowances as he makes thereupon, and not to pass any Articles unduly signed; and is to deliver the said Books which he has kept, of the Expence of Stores into the several Offices, signed by himself, Master, and each Officer, to his respective Counterpart; and is to demand from the Boat-swain, Gunner, Carpenter, and Purser, Counterparts of their Indents, which they are to deliver to him immediately after signing.

Preamble

Preambles to the General and Monthly Books.

*Shrewsbury's Com-
plement 600 Men.*

BEGAN Wages and Extra-
petty - warrant Victualling in
Harbour, the ended
Ditto the began Sea Vic-
tualling at the next Day
ended began Extra-petty-
warrant the ended Ditto
the began Sea Victualling
the following (*as it falls out*)

Marines belonging to Regiment Borne as Part
of the Complement, by Order from the Right Honour-
able the Lords Commissioners of the Admiralty, or it
may happen by the Order of an Admiral, then mention his
Name, saying, bearing Date this Day of
Note, Supernumeraries and Marines are never Borne
without an Order.

Supernumeraries Borne for Victuals only, by Order of
A. B. Rear-Admiral of the White, bearing Date this
Day of Note, Supernumeraries
belonging to other Ships, when discharged by an Order
from thence, to go on Board another Ship, there is two
Lists made out of them; the List given to the Officer
is always signed by the Captain; and the other which
the Captain keeps by him, is signed by the Officer that
receives them, when a Receipt as under-written is
passed.

RECEIVED from on Board His Majesty's Ship
this the above-mentioned Men for the Use of
His Majesty's Ship,

per me,

A. B.

N.B. There

N.B. There are allowed to the Captain of every Ship, four Servants in every Hundred Men of the Complement; to the Lieutenant, Master, Second Mate, Purser, Surgeon, Chaplain, and Cook; in all Ships down to 60 Men, inclusive, each one Servant; to the Boatswain, Gunner, and Carpenter, in all Ships down to 100 Men inclusive, each two Servants; and from 100 to 60 Men, one Servant.

Copies of Certificates generally given by the Captain to his respective Officers, having behaved well in the Discharge of their Duty.

For a LIEUTENANT.

THESE are to certify the Right Honourable the Lords Commissioners for executing the Office of Lord High-Admiral of Great-Britain, and Ireland; That Mr. _____ served _____ Lieutenant under my Command, on Board of His Majesty's Ship _____ from the _____ Day of _____ to the _____ during which Time he complied with the general printed Instructions. Given under my Hand on Board the said Ship at _____ this _____ Day of _____

A. B.

MASTER the same Form.

For a BOATSWAIN.

THESE are to certify the Honourable the Principal Officers and Commissioners of His Majesty's Navy; that Mr. A. B. served as Boatswain, under my Command, on Board of His Majesty's Ship _____ from the _____ to the _____ during which Time he discharged his Duty, as becoming a worthy good Officer. Given under my Hand on Board the said Ship at _____ this _____ Day of _____

S

J. S.
For

For a GUNNER.

THESE are to certify the Right Honourable the Commissioners of the Office of Ordnance ; that Mr. _____ served as Gunner, under my Command, on Board of His Majesty's Ship the _____ from the _____ to the _____ during which Time he discharged his Trust faithfully, as a sober diligent Officer. Given under my Hand on Board the said Ship, at _____ this _____ Day of _____

A. B.

For a MIDSHIPMAN.

THESE are to certify the Right Honourable the Lords Commissioners for executing the Office of Lord High-Admiral of *Great-Britain and Ireland* ; that Mr. _____ served as Midshipman, under my Command, on Board of His Majesty's Ship the _____ from the _____ to the _____ during which Time he behaved with Diligence and Sobriety, and was always obedient to Command. Given under my Hand on Board the said Ship at _____ this _____ Day of _____

A. B.

For the MASTER at ARMS, the same Form.

For a CAPTAIN'S CLERK.

THESE are to certify the Honourable the Principal Officers and Commissioners of His Majesty's Navy ; that Mr. _____ served as Clerk, under my Command, on Board of His Majesty's Ship, the _____ from the _____ to the _____ during which Time he performed his Duty in every Respect, and behaved with Diligence and Sobriety, and was always obedient to Command. Given under my Hand on Board the said Ship, at _____ this _____ Day of _____

A. B.

THESE

THESE are to certify the Honourable the Principal Officers and Commissioners of His Majesty's Navy, that *A. B.* was entered on Board His Majesty's Ship under my Command, on the of as it appears to me, by the compleat Book left by my Predecessor, and served until the Day of at which Time he was discharged by Order of the Right Honourable the Lords Commissioners of the Admiralty, and by their Lordships Order had this Certificate. Given under my Hand, on Board the said Ship at this Day of *A. D.*

THESE are to certify whom it doth or may concern, that *A. B.* belonging to His Majesty's Ship under my Command, was discharged on the Day of by Order of the Right Honourable the Lords Commissioners of the Admiralty, by Reason of his being a Subject to the King of *Sweden*, and by their Lordships Order had this Certificate given him to keep him from being impressed. Given under my Hand on Board the said Ship at the Day of *A. D.*

THESE are to certify the Honourable the Commissioners of His Majesty's Navy, that *A. B.* late belonging to His Majesty's Ship was turned over on Board His Majesty's Ship and from her was entered Steward of His Majesty's Ship under my Command, to which he now belongeth. Given under my Hand, on Board the said Ship at the Day of *A. D.*

THESE are to certify the Honourable the Principal Officers and Commissioners of His Majesty's Navy, that *A. B.* late belonging to His Majesty's Ship was turned over from her into His Majesty's Ship late under my Command; came from the Ren-
devous at *London*, to His Majesty's Ship under
my

my Command, at the _____ and is now on her
Books, and actually at his Duty on Board the said Ship.
Given under my Hand on Board the said Ship at Spithead,
the _____ Day of _____

THESE are to certify the Honourable the Principal Officers and Commissioners of His Majesty's Navy; that the _____ Men above-mentioned, run from His Majesty's Ship _____ under my Command, at the Time, and in the same Manner, as is against their Names particularly expressed, and therefore in my present Opinion they deserve no Relief. Given under my Hand, on Board His Majesty's said Ship _____ at _____ this _____ Day of _____

N.B. This Certificate is always put to the Bottom of the run Men, and signed by the Captain.

Certificates generally given by the Captain, and sent to his Agent to pass his Accounts.

Certificate to the Navy-Office.

THESE are to certify the Honourable the Principal Officers and Commissioners of His Majesty's Navy, that no Stores were lent or bought by me during the Time I commanded His Majesty's Ship _____ (i. e.) from the _____ to the _____ following; neither was there any Shrouds or Back-stays shifted, or Top mast lost in the said Time; and that Mr. _____ was Boat-swain of the said Ship from the said _____ of the same when a Survey was taken and delivered to Mr. _____ succeeding Boatswain, who continued in that Employ the Remainder. And that Mr. _____ was Carpenter of the said Ship the whole Time; (if not, insert to the _____ and was succeeded the _____ by Mr. _____ who continued the Remainder of the Time.) Given under my Hand, on Board the said Ship at _____ the _____

Certificate

Certificate to the Victualling-Office.

I Do hereby certify the Honourable the Commissioners for
 Victualling His Majesty's Navy, the Particulars follow-
 ing, relating to His Majesty's Ship _____ under my
 Command, between the _____ and the _____ following,

- viz*
1. That the established Complement of the said Ship was _____
 on the _____ Men, and continued so the whole Time.
 2. That the Ship's Company were at whole Allowance
 and in Sea-Victualling.
 3. That the Ship was in Petty-Warrant, from the _____
 to the _____ and in Sea-Provisions from the _____
 and continued so the Remainder of the Time.

That Mr. _____ Purser, has continued in that Em-
 ploy the whole Time, that he was not suspended, or
 did he, to the best of my Knowledge, embezzle any of
 the Provisions committed to his Charge.

That no Sea-Provisions were expended in Petty-War-
 rant.

And I do further certify, that the Provisions said to be
 delivered in the Purser's Indents, as well as what was sup-
 plied in broken Proportions, were actually received on Board
 (such Part only excepted, for which the Purser had Credit)
 nor has he received any Money for Beer, short Provisions,
 on Credit, or otherwise; nor were there any Provisions lent
 (if any, say thus, *without having taken proper Receipts for the*
(same)) in the above Time, to any other Ship, or otherwise.

Given under my Hand, on Board the said Ship, at
 the _____

S. G.

*A List of Books and Papers, the Captain usually sends
 to his Agent to pass his Accounts.*

- A General Muster-Book.
 Two Monthly-Books.
 Two Journals;

Sick-

Sick-Book and Ticket-Book.

Account of Provisions received.

Certificate to the Victualling-Office.

Certificate to the Navy.

Counterpart of Boatswains, Gunners, and Carpenters Expence, (when there are any made.)

Certificate of no Survey-Book left.

Purser's Certificate to the Captain.

Survey of Boatswain's Stores, and of the others, (when any taken.)

Survey of Provisions (when any taken.)

Supply and Return of Stores.

Lieutenant's Receipts for Imprest Men.

Order for bearing Supernumeraries and Marines.

The Captain's Commission.

Note, It is your Duty to keep all these Books and Papers in good Order, never to omit finishing your Monthly Muster Books, as soon as the two Months is expired, transmitting the same to the Navy-Office, as often as Conveniencies serve, and a General Muster-Book at the End of every Year, with the Slops, Tobacco, and Dead Mens Cloaths, duly set off on both Monthly and General Muster Books. Be sure at the End of every Month the Gunner's, Boatswain's, and Carpenter's Expence Books be compleat, perused and approved of by your Captain; to the End you may thereby compleat his Counterparts thereof, and be sure they be all duly signed; let your Slop-Cloaths, Tobacco, and Dead Mens Cloaths be set off in the Slop-Book the Moment they are issued. Your Provisions set off in your Accounts as soon as received, and you have compared the Bill of Loading with what is received; your Ticket set off in your Ticket-Book and General Muster-Book, as soon as signed; your sick Men set off in your Sick-Book, and General Muster-Book, as soon as sent to the Hospital, unless they were that Day victualled on Board, and received as soon as they came on Board, unless that Day victualled at the Hospital: One or two Days Neglect of all, or any of these, will not only prove burthensome to the Memory, but in the End turn to a
Heap

Heap of Confusion, and the least Omission will cause an Objection in your Certificates, which without very good Reasons will not be removed; you must remember, that you are not only accountable to your Captain for every Omission or Neglect in the due Performance of your Duty, in any of the Respects before mentioned, whereby the passing of his Accounts may be retarded, but that without his Certificate of your having done your Duty, you cannot receive your Wages; on which Account it seems reasonable, that no Lieutenant, or other Officer, has the least Right to command your entering or discharging Men, or writing or altering any other Thing whatsoever in the Ship's Books, without your Captain's positive Command to you from his own Mouth, to obey such Officer in that Respect.

At passing the Captain's Accounts, the first Certificate to be obtained, is from the Ticket-Office, which, with your Sick-Book, is to be left at the Comptroller's Office; at the same Time you must shew the Captain's Commission; next the Comptroller's Certificate; the Comptroller of the Victualling, the Surveyor's Office, from the Office of Ordnance, Clerk of the Acts, and Admiralty; the Purport of every one of which is to certify at large, that the Captain hath complied with the several Articles of the Lord High-Admiral's Instructions, which fall under the Inspection of those Officers respectively.

INSTRUC-

INSTRUCTIONS in the Purfery.

The Daily Allowance of Provisions to Seamen serving on Board His Majesty's Ships, each Man.

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|--|--|---|---|---|-----------------|
| Pork one Pound, or Beef one Pound and an half, Pease half a Pint. | Oatmeal one Pint, Butter two Ounces, Cheefe four Ounces. | Beef two Pound, Flour, one Pound and an Half, and Suet a Quarter of a Pound. | Pease half a Pint, Oatmeal a Pint, Butter two Ounces, Cheefe four Ounces. | Pork one Pound, or Beef a Pound and an half, Pease half a Pint. | Oatmeal one Pint, Butter two Ounces, Cheefe four Ounces, Pease half a Pint. | Beef two Pounds |

Note, Each Man is allowed for every Day of the Week a Pound of Bread, and a Gallon of Beer.

Rule

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Rule to cast a Proportion of Provisions.

MULTIPLY your Number of Men by the Number of Days to be victualled for, gives Bread in Pounds, and Beer in Gallons; divide your Gallons of Beer by 60, gives Hogsheds, your Hogsheds by 4, gives Tuns.

Divide your Pounds of Bread by 7, the Days in a Week, and that gives you Pieces of Beef and Pork, and Quarts of Pease, which divided by 4, gives Gallons, and by 8, Bushels.

Multiply your Beef or Pork by 3, and divide the Product by 8, gives Pounds of Butter; your Cheese is always double your Butter.

If you have Oil in Lieu of Butter and Cheese, divide by 4 instead of 8, and that gives Pints of Oil.

Your Gallons of Oatmeal (equal to your Pounds of Butter) divide by 8, gives Bushels. If you have Flour and Suet in Lieu of Beef, three Pounds of Flour and half a Pound of Suet for one Piece.

The Reason of this Rule.

ONE Man's Allowance of Bread is 7 Pounds a Week, and but one Piece of Beef, and one Piece of Pork.

One Man is allowed a Pint of Pease four Days every Week, which makes a Quart for every Piece of Beef or Pork.

Three Days in the Week two Ounces of Butter, and 8 Times 2 is 1lb; the same Number of Cheese as Butter Days in the Week.

Three Days in the Week one Man is allowed one Pint of Oatmeal, which is three Pints for a Piece of Beef or Pork; and any Number of Pints divided by 8, gives Gallons, which divided by 8, gives Bushels.

To cast up the necessary Money for any Quantity of Provisions, with the Drawidge, Lading Charges, and additional Money.

Divide

Divide your Bread by 28, and that makes so many Men for a Month, at 6d. each, if above 60 Men, and all under at 9d. a Man, *per Mensum*, then your Adz-Money is not altered.

Drawidge—at 4d. *per Tun*.

Lading Charges 2s. *per Month* in the whole.

Adz-Money—3s. 4d. in the whole *per Month*.

All which the Victualler pays when you Indent.

Extra Necessary-Money, at 8d. *per Man, per Month*, you have a Bill out of the Navy-Office for it.

To cast the Waste of Cask allowed a Purser.

THE King allows one Tun of Cask waste for 100 Men, *per Month*; 2 Iron Hoops, and 3 Bisket Bags.

You must take the Total of your Victualing, and divide by 28, and cast off the two last Figures towards the Right-Hand.

E X A M P L E.

Suppose your Victualling amounts to 30,000, divide by 28, and after having cast off the two last Figures, you will find the Quotient to be 10 for the Tuns, that multiplied by 2, gives your Hoops, and by 3 your Bags, 10 Tuns, 20 Hoops, 30 Bags.

Each Cask will be marked on the Head how much they contain, which your Steward ought to take a careful Account of, and what is wanting of Gauges the Victualler will allow at the Rate of 20s. *per Tun*.

What a Cask should hold according to a Gauge.

| Gall. | | Gall. | |
|---------|---------------|-------|---------------|
| Note, { | 120=Butt | { | 108 |
| | 80=Puncheon | | 72 |
| | 60=Hogshead | | 54 |
| | 40=Barrel | | 36 |
| | Wine Measure. | | Beer Measure. |

Those.

Note, {

Your Beer Measure the Purser being all All y Part fo of Beer Butter a and issue Piece of Fish.

Water the Cha West-l

Your tents m the Por let a M it told i swear, receive

Note Cask a 100 lb. weigh Beef, a

In ta If B for fou 8 lb. of if Chel

Those which hold less are not Gauge.

Note, $\left\{ \begin{array}{l} 2 \text{ Butts} \\ 3 \text{ Punch.} \\ 4 \text{ Hogsh.} \\ 6 \text{ Barrels} \end{array} \right\} \text{ make } \left\{ \begin{array}{l} 56 \text{ Butt} \\ 72 \text{ Punch.} \\ 88 \text{ Hogsh.} \\ 108 \text{ Barrel} \end{array} \right\} \text{ a Tun.}$ $\left\{ \begin{array}{l} \text{Staves} \\ \text{make} \\ \text{a Tun.} \end{array} \right\} \left\{ \begin{array}{l} 2 \text{ Staves} \\ \text{make 1} \\ \text{Head-} \\ \text{Piece.} \end{array} \right\}$

Your Beer ought to be gauged ; and every 108 Gallons Beer Measure, is $132\frac{1}{2}$ Gallons Wine Measure, for which the Purser Indents for 120 Gallons ; the $12\frac{1}{2}$ Difference being allowed for Lees and Leakage.

All you deliver by Weight or Measure you are to keep $\frac{1}{8}$ Part for Waste ; the Measure of 7 Pints is for a Gallon of Beer ; you receive 16 Ounces, and issue 14 Ounces of Butter and Cheese, &c. You receive Winchester Measure, and issue Wine Measure ; as one Wine Pint of Pease to a Piece of Pork ; a Wine Gallon of Oatmeal for a sized Fish.

Water Cask, one Tun a Month for every 100 Men, for the Channel Service and Mediterranean ; double to the West-Indies.

Your Beef and Pork must have the Number and Contents marked on the Head of each Cask, and a Letter for the Port it was killed and packed at. In opening the Cask, let a Master's Mate, Midshipman, or Quarter-Master, see it told into another Cask, to the end they may be able to swear, if any be wanting of the Number of Pieces you receive it for.

Note, That every 28 Pieces of Beef taken out of the Cask as they rise, and the salt shaken off, if they weigh 100 lb. nett, are Weight ; and every 56 Pieces of Pork weigh 104 lb. nett ; the Weight of 12 lb. in the 100 for Beef, and eight Pounds for Pork, is allowed for Waste.

In taking one Piece of Provision for another.

If Beef for Pork, three four-pound Pieces of the first, for four 2 lb. Pieces of the latter, or 12 lb. of Beef for 8 lb. of Pork ; one Pound of Butter for 2 lb. of Cheese ; if Cheshire Cheese for Suffolk, 3 lb. of Suffolk for 2 lb. of Cheshire ;

Cheshire ; if Stockfish for Oatmeal, one Fish for a Gallon of Oatmeal ; if Flour for Beef, 4 lb. of Flour for one Piece of Beef, or 3lb. $\frac{1}{2}$ of Flour and $\frac{1}{2}$ lb. of pickled Suet for one Piece.

The Victualler always gives you a Copy of your Indents, which you must enter into a Book to be kept for that Purpose.

For a Foreign Voyage.

Brandy for Beer, one Gallon for 16 of Beer ; one Pint of Wine for one Gallon of Beer ; one Pint of Oil for a Pound of Butter ; Calavances for Pease or Oatmeal, Quantity for Quantity ; two Pounds of Yams for one Pound of Bread ; one Pound and $\frac{1}{2}$ of Casava for one Pound of Bread ; Rum for Brandy, two gallons for one.

You are likewise to have from the Victualler and Navy-Office, viz.

| | | | | | | |
|---|---|------------------|---|---|---|-------------|
| Bolsters, Punches, Rivets, Rick-Iron, and Iron- hoops. | } | Navy- Office. | { | Trett-hooks, Hogsh. Hoops, Barrel Driver, Prick, Truss-hoops, and Nails. | } | Victualler. |
|---|---|------------------|---|---|---|-------------|

Petty Warrant.

WHEN you receive any Warrant from the Clerk of the Cheque, for victualling in Petty-Warrant, be sure you give them to the Victualler; and take Copies of them, that you may know at cutting up what they amount to, and take always an account from your Steward what he has received, and what remains due to you : You must be sure to return all your Biscuit Bags and Casks, otherwise the Victualler will make you pay 20s. per Tun for Casks, 12d. for Iron Hoops and Bags.

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When you cast up your Petty Warrant, you are not to cast it as your Sea-Victualling, but must take a particular Account how many Flesh and Fish Days there are in your Warrant; so many Pieces of Pork, so many Pints of Pease, Flesh Days $\frac{1}{2}$ a Piece of Beef for Pork, Fish Days $\frac{1}{4}$ Pound of Cheese, $\frac{1}{8}$ of Fish or Oatmeal, and two Ounces of Butter to each Man; of Bread, Butter and Beer, the same as in Sea Victualling; you have sometimes Loaves of two Pounds Weight, of which each Man is to have Half a Loaf: If Biscuit, you give but 12 Ounces to the Pound.

When you make out your Petty Warrant Account.

MAKE yourself Debtor on the Left-hand to all the Provisions received on Board with Casks, Hoops and Bags; and Creditor on the Right-hand by what your Warrant amounts to, and by what Casks, Hoops and Bags, you have returned: When you have made yourself Debtor and Creditor aforesaid, by subtracting what Provisions you have received from what your Warrant amounts to, you'll easily know what Provisions are due to you, and so may draw it into Money according to Pieces in Petty Warrant; but remember to make Debtor and Creditor to what Casks, &c. you do not return; Cask 20s. per Tun, Hoops and Bags 12d. each.

If you deliver any Cask, &c. to the Contractors, or Agents, be sure to take a Receipt for the same; likewise if you return any Cask, &c. by any Vessel or Hoy, take a Receipt from the Master thereof, specifying in Words at Length, and Figures in Manner following.

Portsmouth, July 20, 1782.

Received from on Board His Majesty's Ship
on Board the William Hoy, to be delivered to His Majesty's
Victualling-Office at the Casks, Iron Hoops and
Bags, as followeth, viz.

| | | | | |
|----------------------|-------|-------------|-------|-----|
| Butts Iron-bound | - - - | Ten | - - - | 10 |
| With Iron Hoops | - - - | One Hundred | - - - | 100 |
| Puncheons Iron-bound | - - - | Twenty | - - - | 20 |
| With Iron Hoops | - - - | One Hundred | - - - | 100 |

This is to be signed by the Master,

J. S.

T

Note, If you cut any Cask for Guns, or Tubs, &c. you must specify it accordingly, and so in several other Cases; if the Boatswain use any Iron Hoops for Buoys or Casks for buoying the Cables, or Buckets, you must have a Certificate from the Captain of the same, or if the Carpenter use any of your Billets or Iron Hoops about the Ship or Boat, you must specify how many, and get a Certificate in the following Method; signed by your Captain, viz.

THESE are to certify, that there was cut for the Use of
 His Majesty's Ship _____ under my Command,
 between the _____ Day of _____ and _____ Day
 of _____ Cask to the Value _____ Tuns, Hogsheds,
 &c. to the Truth of this I have hereunto subscribed this
 Day of _____

To find the Necessary Money in Petty-Warrant, at 12*d.* per Man, per Mensen; divide your Pounds of Bread by 28 will give you Shillings; you need not cast up every Warrant, but take the Total of Bread in all your Warrants together.

If you have any Leakage of Beer, Wine, Brandy, Oil, &c. the Captain must be acquainted with it, to the End he may write to the Admiral or Commander in Chief, for an Order, (or grant one himself, if not under such Command) to have the same surveyed by two or three proper Officers, who are to give the Captain an Account thereof under their Hands; of which Report you must have another Copy signed by the same Officers; in the Report must be mentioned the Quantity of Inches leaked out, and Occasion thereof; then the Captain is to give a Certificate, that such a Day being informed of several Damages, &c. he ordered *A. B. C. D. J. S.* to survey the same, who gave him this Report.

If you go into an Harbour and enter into Petty-Warrant, you are to specify on the Front of your General Muster-Book, the Day of ending Sea-Victuals, and entering into Petty-Warrant, and beginning Sea-Provisions again.

You must likewise mention the Beginning and Ending of Short-Allowance, and drinking Water.

If

If at any Time your Provisions prove defective, and not fit for Men to eat or drink, your Captain is to procure the Admiral or Commander in Chief's Orders to survey the same by two or three Masters, who are to sign a Report of the Quantity and Defects of the said Provisions, with the Occasion thereof; which you are to deliver to the Agent-Victualler at the next Victualling Port you come to; if it be not Beer (which is generally turned over-board at the Survey) take his Receipt for the same, and be sure to remember what Place it came from, and get a Certificate of that from under the Hands of your Master's Mate, &c. and Cooper; but if it should happen in the *Mediterranean*, you are to have His Majesty's Agent at the Survey, if possible, to whom you are to deliver the defective Provisions, and get a Receipt, with a Certificate as follows, *viz.*

WHEREAS there has been cast by Survey, on Board His Majesty's Ship (myself present, then mentioning the Quantity of Provisions) which were found defective, and not fit for Men to eat. These are to desire you to supply Mr. A. B. Purser of the said Ship, with the like Quantity of good and wholesome Provisions, he having received the same at the Port of upon Indent, and for so doing this shall be your Warrant. Dated the Day of

Note, If you should have a Supply for your defective Provisions, and give up your Certificate of Survey, then you are to give no Receipt for the same.

If at any Time you have indented for a Proportion of Provisions, and you have Credit for Part thereof, when you receive that Part and give up your Credit, you are to give no Receipt for the same.

When you supply any other Ship with a Proportion of Victuals, Casks, Bags, or Iron Hoops, you are to take Care to take the Number and Contents of your Casks of each Specie, and also of the Quantities of Species delivered, and to take the Purser's Receipts for the same. No Provisions

to be supplied or delivered without the Captain's written Order.

The Purser is to supply the Clerk of the Cheque with a compleat Muster-Book, whereon all the Issues of Slop-Cloaths, Tobacco, Beds, and Dead Mens Cloaths, &c. are to be exactly set off, and to be very exact in his Weekly Accounts of Provisions remaining on Board, especially when under the Command of an Admiral.

You are to furnish no Wood or Coals but for the Furnace, except to prepare Things for Sick Men; and if the Surgeon receives the necessary Money for the Sick Men, he is to furnish them with Firing,

You are not obliged to find Candles, but what are for the Ship's necessary Use, though it is customary to oblige Officers.

That you may the better be enabled to furnish the Clerk of the Cheque with Muster-Books, and for the better Government of your victualing the Ship's Company; it is very necessary you keep a Muster-Book, as compleat and as exact as possible, taking always particular Notice to cheque those who are from Time to Time chequed by the Clerk of the Cheque; and likewise an Account of Sick Men sent to the Hospital; or absent on other Occasions, and not the Ship's Business: to the End you may not victual Men who are not allowed to be so victualled.

You are also to keep a Slop-Book, whereon you are to charge yourself with all Cloaths and Beds you receive from the Slop-sellers, to whom you must be accountable for the same; your Issues thereof, Tobacco, and Dead Mens Cloaths, must always be set off carefully; this must always agree with the Captain's Slop-Book, who is directed by his Instructions to see that they be issued according to the Establishment: At the End of your Slop-Book you must have a particular Account of the Dead Mens Cloaths.

Price

In P

Bread-
Beer -
Beef -
Pork -
Pease -
Butter
Cheese
Oatme

What

Bread
Beer
Beef
Pork
Pease
Oatme
Butter
Cheese

Price of Provisions in His Majesty's Ships.

In Petty-Warrant.

In Sea-Victualling.

| | <i>l.</i> | <i>s.</i> | <i>d.</i> | |
|---------|-----------|-----------|-----------------|-----------------|
| Bread | 0 | 0 | 0 $\frac{1}{4}$ | per lb. |
| Beer | 0 | 0 | 1 | per Gallon |
| Beef | 0 | 0 | 7 | per 4lb. Piece. |
| Pork | 0 | 0 | 5 | 2lb ditto |
| Pease | 0 | 0 | 1 | per Quart |
| Butter | 0 | 0 | 4 | per Pound |
| Cheese | 0 | 0 | 2 | per ditto |
| Oatmeal | 0 | 0 | 5 | per Gallon. |

| | <i>l.</i> | <i>s.</i> | <i>d.</i> | |
|--|-----------|-----------|-----------------|---------------|
| | 0 | 0 | 1 $\frac{1}{2}$ | per lb. |
| | 1 | 10 | 0 | per Tun. |
| | 0 | 0 | 8 | { per Piece.. |
| | 0 | 0 | 6 | |
| | 0 | 3 | 4 | per Bushel |
| | 0 | 0 | 4 | { per Pound.. |
| | 0 | 0 | 2 | |
| | 0 | 0 | 7 | per Gallon. |

What the Victualler pays the Purser for broken Provisions.

| | <i>l.</i> | <i>s.</i> | <i>d.</i> | |
|---------|-----------|-----------|-----------|---------------|
| Bread | 0 | 0 | 1 | per lb.. |
| Beer | 1 | 10 | 0 | per Tun |
| Beef | 0 | 0 | 8 | { per Piece.. |
| Pork | 0 | 0 | 6 | |
| Pease | 0 | 3 | 4 | per Bushel. |
| Oatmeal | 0 | 0 | 0 | |
| Butter | 0 | 0 | 4 | { per lb.. |
| Cheese | 0 | 0 | 2 | |

At passing Accounts.

What you pay for Provisions if Debtor, and what allowed if Creditor.

| Debtor. | | | Creditor. | | |
|---------|---------|------------------|-----------|----|--------------|
| l. | s. | d. | l. | s. | d. |
| Bread | - 0 0 | 1½ per lb. | 0 0 | 1½ | per lb. |
| Beer | - 2 0 0 | per Tun. | 2 0 0 | 0 | per Tun. |
| Beef | - 0 0 | 10 per 4lb. Pce. | 0 0 | 9½ | } per Piece. |
| Pork | - 0 0 | 7 per 2lb. ditto | 0 0 | 6½ | |
| Pease | - 0 4 0 | per Bushel. | 0 4 0 | 0 | per Bushel. |
| Oatmeal | | | | | |
| Butter | - 0 0 | 5 } per lb. | { 0 0 | 4½ | } per lb. |
| Cheese | - 0 0 | 2½ } | { 0 0 | 2½ | |

What the Victualler usually allows for Provisions you take short.

| In Petty Warrant. | | | In Sea Victualling. | | |
|-------------------|---------|------------------|---------------------|----|--------------|
| l. | s. | d. | l. | s. | d. |
| Bread | - 0 0 | 0¼ per lb. | 0 0 | 1 | per lb. |
| Beer | - 0 0 | 1 per Gallon. | 1 8 0 | 0 | per Tun. |
| Beef | - 0 0 | 6 per 4lb. Pce. | { 0 0 | 8 | } per Piece. |
| Pork | - 0 0 | 4 per 2lb. ditto | { 0 0 | 4 | |
| Pease | - 0 2 6 | per Bushel. | | | |
| Oatmeal | | | 0 2 6 | 0 | per Bushel. |
| Butter | - 0 0 | 3½ } per lb. | { 0 0 | 3½ | } per lb. |
| Cheese | - 0 0 | 1½ } | { 0 0 | 1½ | |

J. S. Purser of His Majesty's Ship.

I Do acknowledge to have received from the Commissioners for Victualling His Majesty's Navy, at the Port of a compleat Proportion of good and wholesome Sea Victuals, Necessary Money, &c. for Men Days, in the Manner following, viz. Men

Necessary-Money, at a Man per Menssem.
 Lading Charges, two Shillings per Menssem.
 Drawage of Tuns of Beer, at 4d. per Tun.
 Adz-Money, at 3s. 4d. per Menssem.

Extraordinary Necessary-Money.

Casks with Provisions.

Water Cask, with } { Iron-bound.
 Cooper's Stores. } { Wood-bound.

Iron Hoops:

Biscuit Bags.

With which Viſuals, Money, Credit before-mentioned, I do oblige myself to Viſual (according to His Majesty's Allowance) the ſaid Number of Men for the ſaid Time, and for all which I have ſigned a Receipt.

Witness my Hand this
 Anno Dom.

Day of.

An

A Table for Casting your Viſualing-Book.

| Jan. | Feb. | Mar. | April | May | June | July |
|------|------|------|-------|-----|------|------|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| 14 | 14 | 14 | 14 | 14 | 14 | 14 |
| 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| 22 | 22 | 22 | 22 | 22 | 22 | 22 |
| 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| 27 | 27 | 27 | 27 | 27 | 27 | 27 |
| 28 | 28 | 28 | 28 | 28 | 28 | 28 |
| 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 31 | 31 | 31 | 31 | 31 | 31 | 31 |

| A |
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| Aug |
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A Table for Casting your Victualing-Book.

| Auguft | Sept. | October | Novem | Dec. |
|--------|--------|---------|--------|--------|
| 1 213 | 1 244 | 1 274 | 1 305 | 1 335 |
| 2 214 | 2 245 | 2 275 | 2 306 | 2 336 |
| 3 215 | 3 246 | 3 276 | 3 307 | 3 337 |
| 4 216 | 4 247 | 4 277 | 4 308 | 4 338 |
| 5 217 | 5 248 | 5 278 | 5 309 | 5 339 |
| 6 218 | 6 249 | 6 279 | 6 310 | 6 340 |
| 7 219 | 7 250 | 7 280 | 7 311 | 7 341 |
| 8 220 | 8 251 | 8 281 | 8 312 | 8 342 |
| 9 221 | 9 252 | 9 282 | 9 313 | 9 343 |
| 10 222 | 10 253 | 10 283 | 10 314 | 10 344 |
| 11 223 | 11 254 | 11 284 | 11 315 | 11 345 |
| 12 224 | 12 255 | 12 285 | 12 316 | 12 346 |
| 13 225 | 13 256 | 13 286 | 13 317 | 13 347 |
| 14 226 | 14 257 | 14 287 | 14 318 | 14 348 |
| 15 227 | 15 258 | 15 288 | 15 319 | 15 349 |
| 16 228 | 16 259 | 16 289 | 16 320 | 16 350 |
| 17 229 | 17 260 | 17 290 | 17 321 | 17 351 |
| 18 230 | 18 261 | 18 291 | 18 322 | 18 352 |
| 19 231 | 19 262 | 19 292 | 19 323 | 19 353 |
| 20 232 | 20 263 | 20 293 | 20 324 | 20 354 |
| 21 233 | 21 264 | 21 294 | 21 325 | 21 355 |
| 22 234 | 22 265 | 22 295 | 22 326 | 22 356 |
| 23 235 | 23 266 | 23 296 | 23 327 | 23 357 |
| 24 236 | 24 267 | 24 297 | 24 328 | 24 358 |
| 25 237 | 25 268 | 25 298 | 25 329 | 25 359 |
| 26 238 | 26 269 | 26 299 | 26 330 | 26 360 |
| 27 239 | 27 270 | 27 300 | 27 331 | 27 361 |
| 28 240 | 28 271 | 28 301 | 28 332 | 28 362 |
| 29 241 | 29 272 | 29 302 | 29 333 | 29 363 |
| 30 242 | 30 273 | 30 303 | 30 334 | 30 364 |
| 31 243 | | 31 304 | | 31 365 |

Note, If your Victualing-Book is for more than one Year, then make your Table so much more, or begins not with the Month, your Table must be accordingly.

January

| | Jan. | Feb. | March | April | May | June | July | August | September | October | November | December |
|----------|------|------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|
| Jan. | 365 | 337 | 306 | 276 | 245 | 215 | 184 | 153 | 123 | 92 | 62 | 31 |
| February | 28 | 365 | 334 | 304 | 273 | 243 | 212 | 181 | 151 | 120 | 96 | 59 |
| March | 59 | 31 | 365 | 334 | 304 | 274 | 243 | 212 | 182 | 151 | 121 | 90 |
| April | 89 | 61 | 30 | 365 | 334 | 304 | 273 | 248 | 212 | 181 | 151 | 120 |
| May | 120 | 92 | 61 | 31 | 365 | 335 | 304 | 273 | 243 | 212 | 181 | 151 |
| June | 150 | 122 | 92 | 61 | 30 | 365 | 334 | 304 | 273 | 242 | 212 | 181 |
| July | 181 | 153 | 122 | 92 | 61 | 31 | 365 | 334 | 304 | 273 | 243 | 212 |
| August | 212 | 184 | 153 | 123 | 92 | 62 | 31 | 365 | 335 | 304 | 274 | 243 |
| Sept. | 242 | 214 | 183 | 153 | 122 | 92 | 61 | 30 | 365 | 334 | 304 | 273 |
| October | 273 | 245 | 214 | 184 | 153 | 123 | 92 | 61 | 31 | 365 | 335 | 304 |
| Nov. | 303 | 275 | 244 | 214 | 183 | 153 | 122 | 91 | 61 | 30 | 365 | 334 |
| Dec. | 334 | 306 | 275 | 245 | 214 | 184 | 153 | 122 | 92 | 61 | 31 | 365 |

January

| Jan. Mar. May July, Aug. Oct. Dec. 31 Days | | Apr. June Sept. November 30 Days. | | Feb. 28 Days | |
|--|----|---|----|--------------|----|
| 1 | 31 | 1 | 30 | 1 | 28 |
| 2 | 30 | 2 | 29 | 2 | 27 |
| 3 | 29 | 3 | 28 | 3 | 26 |
| 4 | 28 | 4 | 27 | 4 | 25 |
| 5 | 27 | 5 | 26 | 5 | 24 |
| 6 | 26 | 6 | 25 | 6 | 23 |
| 7 | 25 | 7 | 24 | 7 | 22 |
| 8 | 24 | 8 | 23 | 8 | 21 |
| 9 | 23 | 9 | 22 | 9 | 20 |
| 10 | 22 | 10 | 21 | 10 | 19 |
| 11 | 21 | 11 | 20 | 11 | 18 |
| 12 | 20 | 12 | 19 | 12 | 17 |
| 13 | 19 | 13 | 18 | 13 | 16 |
| 14 | 18 | 14 | 17 | 14 | 15 |
| 15 | 17 | 15 | 16 | 15 | 14 |
| 16 | 16 | 16 | 15 | 16 | 13 |
| 17 | 15 | 17 | 14 | 17 | 12 |
| 18 | 14 | 18 | 13 | 18 | 11 |
| 19 | 13 | 19 | 12 | 19 | 10 |
| 20 | 12 | 20 | 11 | 20 | 9 |
| 21 | 11 | 21 | 10 | 21 | 8 |
| 22 | 10 | 22 | 9 | 22 | 7 |
| 23 | 9 | 23 | 8 | 23 | 6 |
| 24 | 8 | 24 | 7 | 24 | 5 |
| 25 | 7 | 25 | 6 | 25 | 4 |
| 26 | 6 | 26 | 5 | 26 | 3 |
| 27 | 5 | 27 | 4 | 27 | 2 |
| 28 | 4 | 28 | 3 | 28 | 1 |
| 29 | 3 | 29 | 2 | | |
| 30 | 2 | 30 | 1 | | |
| 31 | 1 | | | | |

A Proportion of Seven Days, or one Week's Provisions for the Number of Men aftermentioned.

| No of Men | No of Days | Beer | | Wine in Lieu of Beef. | Beef in 4lb Picc. | Pork in 2lb Picc. | Flour in Lieu of Beef | Suet in Lieu of Ditto | Pease | | Oatmeal | | Butter lb. | Cheese lb |
|-----------|------------|------|----------|-----------------------|-------------------|-------------------|-----------------------|-----------------------|-------|------|---------|------|------------|-----------|
| | | Tun | Hhd Gal. | | | | | | Bush | Gal. | Bush | Gal. | | |
| 10 | 70 | 0 | 1 10 | — | 10 | 10 | — | — | 0 | 2 | 0 | 3 | 3 | 7 |
| 11 | 77 | 0 | 1 17 | — | 11 | 11 | — | — | 0 | 2 | 0 | 4 | 4 | 8 |
| 12 | 84 | 0 | 1 24 | — | 12 | 12 | — | — | 0 | 3 | 0 | 4 | 4 | 9 |
| 13 | 91 | 0 | 1 31 | — | 13 | 13 | — | — | 0 | 3 | 0 | 4 | 4 | 9 |
| 14 | 98 | 0 | 1 38 | — | 14 | 14 | — | — | 0 | 3 | 0 | 5 | 5 | 10 |
| 15 | 105 | 0 | 1 45 | — | 15 | 15 | — | — | 0 | 3 | 0 | 5 | 5 | 11 |
| 16 | 112 | 0 | 1 52 | — | 16 | 16 | — | — | 0 | 4 | 0 | 6 | 6 | 12 |
| 17 | 119 | 0 | 2 59 | — | 17 | 17 | — | — | 0 | 4 | 0 | 6 | 6 | 12 |
| 18 | 126 | 0 | 6 | — | 18 | 18 | — | — | 0 | 4 | 0 | 6 | 6 | 13 |
| 19 | 133 | 0 | 2 13 | — | 19 | 19 | — | — | 0 | 4 | 0 | 7 | 7 | 14 |
| 20 | 140 | 0 | 2 20 | — | 20 | 20 | — | — | 0 | 5 | 0 | 7 | 7 | 15 |
| 21 | 147 | 0 | 2 27 | — | 21 | 21 | — | — | 0 | 5 | 0 | 7 | 7 | 15 |

A

A

| | | | | | | | | | | | | | | |
|----|-----|---|------|---|----|----|---|---|---|---|---|---|---|----|
| 22 | 154 | 0 | 2 34 | — | 22 | 22 | — | — | 0 | 5 | 1 | 0 | 8 | 16 |
| 23 | 161 | 0 | 2 41 | — | 23 | 23 | — | — | 0 | 5 | 1 | 0 | 8 | 17 |

| A | | | | B | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 16 | 17 | 18 | 18 | 19 | 20 | 21 | 21 |
| 8 | 8 | 9 | 9 | 9 | 10 | 10 | 10 |
| 0 | 0 | 1 | 1 | 1 | 2 | 2 | 2 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
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| | | | | | | | |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| | | | | | | | |
| 34 | 41 | 48 | 55 | 2 | 19 | 16 | 23 |
| 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 154 | 161 | 168 | 175 | 182 | 189 | 196 | 203 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 210 | 217 | 224 | 231 | 238 | 245 | 252 | 259 |
| 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 |
| 30 | 37 | 44 | 51 | 58 | 15 | 12 | 19 |
| 3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |

The Seaman's Vade-Mecum.

| | | | | |
|---|--|--|---|---|
| B | 28 29 30 30 30 32 | 28 29 30 30 30 32 | 33 33 34 35 36 36 37 | 33 33 34 35 36 36 37 |
| | 14 14 15 15 15 16 | 14 14 15 15 15 16 | 16 16 17 17 18 18 18 | 16 16 17 17 18 18 18 |
| | 6 6 7 7 7 0 | 6 6 7 7 7 0 | 0 1 1 2 2 2 | 0 1 1 2 2 2 |
| | 1 1 1 1 1 2 | 1 1 1 1 1 2 | 2 2 2 2 2 2 | 2 2 2 2 2 2 |
| | 1 1 2 2 2 2 | 1 1 2 2 2 2 | 3 3 3 3 4 4 4 | 3 3 3 3 4 4 4 |
| | 1 1 1 1 1 1 | 1 1 1 1 1 1 | 1 1 1 1 1 1 1 | 1 1 1 1 1 1 1 |
| | 38 39 40 41 42 43 | 38 39 40 41 42 43 | 44 45 46 47 48 49 50 | 44 45 46 47 48 49 50 |
| | 38 39 40 41 42 43 | 38 39 40 41 42 43 | 44 45 46 47 48 49 50 | 44 45 46 47 48 49 50 |
| | 26 33 40 47 54 I | 26 33 40 47 54 I | 8 15 22 29 36 43 50 | 8 15 22 29 36 43 50 |
| | 0 0 0 0 0 I | 0 0 0 0 0 I | I I I I I I I | I I I I I I I |
| | I I I I I I | I I I I I I | I I I I I I I | I I I I I I I |
| B | 266 273 280 287 294 301 | 266 273 280 287 294 301 | 308 315 322 329 336 343 350 | 308 315 322 329 336 343 350 |
| | 38 39 40 41 42 43 | 38 39 40 41 42 43 | 44 45 46 47 48 49 50 | 44 45 46 47 48 49 50 |

N.B. These three last Tables join at the Letters A, A; B, B.

A PROPORTION of PROVISIONS for 280 Men, for the Number of Days after-mentioned,

| Days | Bread in Pounds. | Beer | | Wine in Lieu of Beer Gallons | | Beef in 4lb Pic. | | Pork in 2lb Pic. | | Flour in Lieu of Beef | | Suet for Ditto | | Paefe meal | | | | Butter. | | Cheefe. | Oil in Lieu of Butter & Cheefe Pints. |
|------|------------------|------|------|------------------------------|------|------------------|-----|------------------|---|-----------------------|---|----------------|---|------------|---|----|---|---------|-----|---------|---------------------------------------|
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | | | |
| 1 | 280 | 1 | 0 40 | 1 | 0 40 | 40 | 40 | — | — | — | — | — | — | 1 | 2 | 1 | 7 | 15 | 30 | — | |
| 2 | 560 | 2 | 1 20 | 2 | 1 20 | 80 | 80 | — | — | — | — | — | — | 2 | 4 | 3 | 6 | 30 | 6 | — | |
| 3 | 840 | 3 | 2 0 | 3 | 2 0 | 120 | 120 | — | — | — | — | — | — | 3 | 6 | 5 | 5 | 45 | 90 | — | |
| 4 | 1120 | 4 | 2 40 | 4 | 2 40 | 160 | 160 | — | — | — | — | — | — | 5 | 0 | 7 | 4 | 60 | 120 | — | |
| 5 | 1400 | 5 | 3 20 | 5 | 3 20 | 200 | 200 | — | — | — | — | — | — | 6 | 2 | 9 | 3 | 75 | 150 | — | |
| 6 | 1680 | 6 | 0 0 | 6 | 0 0 | 240 | 240 | — | — | — | — | — | — | 7 | 4 | 11 | 2 | 90 | 180 | — | |
| 7 | 1960 | 7 | 0 40 | 7 | 0 40 | 280 | 280 | — | — | — | — | — | — | 8 | 6 | 13 | 1 | 105 | 210 | — | |
| 8 | 2240 | 8 | 1 20 | 8 | 1 20 | 320 | 320 | — | — | — | — | — | — | 10 | 0 | 15 | 0 | 120 | 240 | — | |
| 9 | 2520 | 9 | 2 0 | 9 | 2 0 | 360 | 360 | — | — | — | — | — | — | 11 | 2 | 16 | 7 | 135 | 270 | — | |
| 10 | 2800 | 10 | 2 40 | 10 | 2 40 | 440 | 400 | — | — | — | — | — | — | 12 | 4 | 18 | 6 | 150 | 300 | — | |

| C | | C | | | | | | | | | | C | |
|----|------|----|-----|---|---|---|---|---|---|---|---|----|-----|
| 11 | 3080 | 12 | 320 | — | — | — | — | — | — | — | — | 13 | 330 |
| 12 | 3360 | 14 | 0 | — | — | — | — | — | — | — | — | 15 | 360 |
| 13 | 3640 | 15 | 040 | — | — | — | — | — | — | — | — | 16 | 390 |
| 14 | 3920 | 16 | 120 | — | — | — | — | — | — | — | — | 17 | 420 |
| 15 | 4200 | 17 | 20 | — | — | — | — | — | — | — | — | 18 | 450 |
| 16 | 4480 | 18 | 240 | — | — | — | — | — | — | — | — | 19 | 480 |
| 17 | 4760 | 19 | 320 | — | — | — | — | — | — | — | — | 20 | 510 |
| 18 | 5040 | 21 | 0 | — | — | — | — | — | — | — | — | 21 | 540 |
| 19 | 5320 | 22 | 040 | — | — | — | — | — | — | — | — | 22 | 570 |
| 20 | 5600 | 23 | 120 | — | — | — | — | — | — | — | — | 23 | 600 |
| 21 | 5880 | 24 | 20 | — | — | — | — | — | — | — | — | 24 | 630 |
| 22 | 6160 | 25 | 240 | — | — | — | — | — | — | — | — | 25 | 660 |
| 23 | 6440 | 26 | 320 | — | — | — | — | — | — | — | — | 26 | 690 |
| 24 | 6720 | 18 | 0 | — | — | — | — | — | — | — | — | 27 | 720 |
| 25 | 7000 | 19 | 040 | — | — | — | — | — | — | — | — | 28 | 750 |
| 26 | 7280 | 30 | 120 | — | — | — | — | — | — | — | — | 29 | 780 |
| 27 | 7560 | 31 | 20 | — | — | — | — | — | — | — | — | 30 | 810 |

N. B. Those two last Tables join at the Letters C.C.

Months

MONTHS at 28 Days each.

| Months | Bread in Pounds | Tun | Hogshead | Gall | Wine | Peef | Pork | Flour | Suet | Peafe | Oatmeal | Butter | Cheefe | Oil in Lieu, &c. |
|--------|-----------------|-----|----------|------|------|-------|-------|-------|------|-------|---------|--------|--------|------------------|
| | | | | | | | | | | B. | G. | B. | G. | |
| 1 | 7840 | 32 | 40 | — | — | 1120 | 1120 | — | — | 35 | 52 | 420 | 840 | — |
| 2 | 15680 | 65 | 120 | — | — | 2240 | 2240 | — | — | 70 | 105 | 840 | 1680 | — |
| 3 | 23520 | 98 | 0 | — | — | 3360 | 3360 | — | — | 105 | 157 | 1260 | 2520 | — |
| 4 | 31360 | 130 | 240 | — | — | 4480 | 4480 | — | — | 140 | 210 | 1680 | 3360 | — |
| 5 | 39200 | 163 | 120 | — | — | 5600 | 5600 | — | — | 175 | 262 | 2100 | 4200 | — |
| 6 | 47040 | 196 | 0 | — | — | 6720 | 6720 | — | — | 210 | 315 | 2520 | 5040 | — |
| 7 | 54880 | 228 | 240 | — | — | 7840 | 7840 | — | — | 245 | 367 | 2940 | 5880 | — |
| 8 | 62720 | 261 | 120 | — | — | 8960 | 8960 | — | — | 280 | 420 | 3360 | 6720 | — |
| 9 | 70560 | 294 | 0 | — | — | 10080 | 20080 | — | — | 315 | 472 | 3780 | 7560 | — |
| 10 | 78400 | 326 | 240 | — | — | 11200 | 11200 | — | — | 350 | 525 | 4200 | 8400 | — |
| 11 | 86240 | 359 | 120 | — | — | 12320 | 12300 | — | — | 385 | 577 | 4620 | 9240 | — |
| 12 | 94080 | 392 | 0 | — | — | 13440 | 12440 | — | — | 420 | 630 | 5040 | 10080 | — |
| 13 | 101920 | 424 | 240 | — | — | 14560 | 14560 | — | — | 455 | 682 | 5460 | 10920 | — |

| DIMENSIONS of the BRITISH NAVY, according to the present Establishment. | | FRENCH. | |
|---|-------------------|---------|------|
| Burthen, Tons | 100 | 1700 | 1730 |
| | 2000 | 1780 | 1730 |
| Feet and Inches | Gun Deck | 178 | 1730 |
| | Keel | 144 | 138 |
| Length of the | Forecastle | 38 | 36 |
| | Upper Edge keel | 268 | 25 |
| Depth in the Hold | Extreme Breadth | 216 | 20 |
| | Draught of A fore | 51 | 48 |
| Water | A-baft | 223 | 21 |
| | Gun | 225 | 22 |
| Height of the | Middle | 72 | 7 |
| | Upper | 71 | 7 |
| Quarter | Upper | 77 | 6 |
| | Quarter | 66 | 6 |

| Pinnaces. | | | | Yawls. | | | | Long-Boats | | | | | | | |
|-----------|------|---------|-------|--------|------|---------------------|-------|------------|-------|---------|------|-------|-------|---------------------|-------|
| Length | | Breadth | | Depth | | N ^o Oars | | Length | | Breadth | | Depth | | N ^o Oars | |
| Guns | Feet | F. I. | F. I. | F. I. | Feet | F. I. | F. I. | Feet | F. I. | F. I. | Feet | F. I. | F. I. | Feet | F. I. |
| 100 | 30 | 8 | 9 | 3 | 10 | 10 | | 22 | 6 | 9 | 3 | 1 | 36 | 10 | 3 |
| 90 | 28 | 8 | 6 | 3 | 9 | 10 | | 21 | 6 | 6 | 3 | 0 | 35 | 10 | 0 |
| 80 | 28 | 8 | 3 | 3 | 8 | 10 | | 20 | 6 | 3 | 3 | 11 | 34 | 9 | 9 |
| 70 | 27 | 8 | 0 | 3 | 7 | 10 | | 19 | 6 | 0 | 2 | 10 | 33 | 9 | 6 |
| 60 | 26 | 7 | 9 | 3 | 7 | 10 | | 18 | 5 | 9 | 2 | 9 | 32 | 9 | 3 |
| 50 | 25 | 7 | 6 | 3 | 6 | 10 | | 17 | 5 | 6 | 2 | 8 | 31 | 9 | 0 |
| 44 | 24 | 7 | 3 | 3 | 5 | 8 | | | | | | | 30 | 8 | 9 |
| 24 | 23 | 7 | 0 | 3 | 4 | 8 | | 15 | 0 | | | 6 | 29 | 8 | 6 |
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The Method of forming Signals for the Regulation of Merchant Ships sailing in Company together, under the Direction of a Commodore in Time of War.

B Y D A Y.

1. **W** H E N the Commodore would have the Ships under his Convoy, prepare for sailing, he will loose his Sail.
2. When he would have them unmoor, he will loose his Sail, and fire Gun, or Guns.
3. When he would have them weigh, he will loose his Sail; if it be convenient, haul home the Sheet, and fire Gun.
4. When he would have the weathermost and headmost Ships to tack first, he will hoist at the Mast-head, and fire Gun.
5. When he would have the sternmost and leewardmost Ships to tack first, he will hoist at the Mast-head, and fire Gun.
6. When he would have the whole Fleet tack together, he will hoist at the Mast-head, and fire Gun.
7. When he would have the Fleet (in bad Weather) veer, and bring too on the other Tack, he will hoist a Pendant on the and fire Gun; the leewardmost and sternmost Ships are to veer first, and bring too the other Tack, and lie by, or make easy Sail, till the Commodore comes a-head.
8. When the Fleet is sailing large, or before the Wind, and the Commodore would have them bring too with the Starboard Tack on Board, he will hoist a Flag on the Top-mast-head, and fire Gun; if to bring too with the Larboard Tacks, at the same Place, and fire Guns.
9. When the Fleet is lying by, or sailing by a Wind, and the Commodore would have them bear-up and sail large, or before the Wind, he will hoist and fire Gun.
10. When

10. When any discovers Land, he is to hoist his and keep the same Abroad, till the Commodore answers him by hoisting his; upon Sight of which he is to haul his down.

11. If any discovers Danger, he is to tack and bear up from it, and put Abroad from the Main-top-mast Cross-trees downward upon the Back-stay, and fire Guns; but if the Ship should strike, and stick fast, he is to make the same Signal, and continue firing of Guns, until he sees the rest have observed him.

12. When any of the Fleet lose Company, and meet again, those to Windward shall and those to Leeward shall answer by

13. In Case of springing a Leak, or any other Disaster that disables your Ship from keeping Company, you are to haul up your Courses, and fire Guns.

14. Whoever wants to speak with the Commodore, must spread an from the Head of the downwards on the Shrouds, lowering his Top sail, and firing Guns till he is observed; and, if any Ship perceives the same, he is to make the same Signal, and endeavour to acquaint the Commodore therewith, who will answer by firing Guns.

15. The Ships are to keep as near together as conveniently as they can; and when the Commodore would have the headmost and weathermost of them bear down to him, he is to hoist make a Weft with his Ensign, and fire Gun, then they are to bear down in his Wake.

16. Upon Discovery of strange Ships, if the Commodore would have the Trade lie by, or fall a-stern, he will spread on the Mast or Shrouds, and fire Gun. And if he would have them make Sail a-head, or bear away, he will spread Shrouds, and fire Gun.

17. It is absolutely necessary, That all Ships that put or form themselves under Convoy, be very careful to keep Company with the same; and that they do not on any Pre-

tence or Interest whatsoever make a Separation, this being often attended with very destructive Consequences. Signals made by the Admiral in Chief, the other Flags, the several Convoys of private Men of War, and the Captains under those Convoys, the Care the Trade ought to have in following their respective Commodores, and the Methods they ought to take, when the Convoys are attacked, are peculiar to the Men of War, and therefore need not be inserted here.

18. When the Commodore makes a Signal to Anchor, he will hoist on the and fire Guns.

19. When the Commodore would have the Fleet to moor, he will fire Gun, and hoist his sail with the Clew-lines hauled up.

20. When the Commodore would have the Fleet to cut or slip, he will fire Gun, and loose both his sails; the Leewardmost Ships are to cut and slip first, to give Room to the Weathermost to come to sail.

B Y N I G H T.

If the Commodore designs to carry the Lights, he will hoist an a little before Night.

1. **W**HEN the Commodore would have the Fleet to unmoor, and ride short, he will hang out Lights, one over the other, in the Shrouds, and fire Guns: Then every Ship is to hang out a Light in the Shrouds.

2. When he would have the Fleet to weigh, he will hang out a Light in the Shrouds, and fire Gun: Then every Ship is to hang out a Light in the Shrouds.

3. When he would have the Fleet to tack, he will hoist Lights on the one over the other, and fire Gun: Then every Ship in the Fleet is to hang out a Light extraordinary, which is not to be taken in till the Commodore takes his in.

4. When

4. When he is upon a Wind, and would have the Fleet veer, and bring-too on the other Tack, he will hoist up one Light on the and fire Gun: Then every Ship is to answer with one Light at the same Place: The Sternmost and Leewardmost are to bear up so soon as the Signal is made.

5. When he would have the Fleet to lie a-try, short, or a Hull, or the Head-fails braced to the Mast, he will shew Lights of equal Height, and fire Guns; and every Ship in the Fleet is to shew forth the same Number of Lights.

6. When he would have the Fleet make Sail after lying a-try, short, or a Hull, or the Head-fails to the Mast, he will fire Guns: Then the Headmost and Weathermost Ships are to make Sail first.

7. When the Fleet is sailing large or before the Wind, and the Commodore would have them bring-too, and lie by with their Starboard Tacks Aboard; he will put Abroad Lights in the Shrouds, and fire Guns; but if with the Larboard Tacks Aboard Guns: Every Ship is to answer with the same Number of Lights, and the Windwardmost Ships are to bring-too first.

8. If he alters his Course, he will fire Gun, without Alteration of Lights.

9. When a Ship has Occasion to lie short, or by, after the Fleet has made Sail, he is to fire one Gun, and shew Lights in the Shrouds

10. When any one discovers Land or Danger, he is to shew as many Lights as he can, fire Gun, and tack and bear away from it.

11. In Case of springing a Leak, or any other Disaster that disables your Ship from keeping Company, you are to hang out Lights of equal Height, and fire Guns till you are relieved.

12. If any Ship lose Company, and meet again, he who hails first, shall ask, What Ship's that? And he who is hailed first, shall answer the other who hailed first shall reply then he who was first hailed shall answer

13. When

13. When the Commodore Anchors, he will fire Guns, a small Space of Time one from the other : Then every Ship is to shew Lights.

14. When he would have the Fleet to-moor, he will put a Light on each and fire Gun : And every Ship is to shew Light.

15. When he would have the Fleet cut or slip, he will hang out Lights, one at each and at each and fire Guns : Then each Ship is to shew one Light.

16. When he would have the Ships that are too near, keep a reasonable Distance a-stern, he will fire Muskets at about half a Minute's Distance from each other.

Whereas the 12th Article in the Night-Signal for losing Company and meeting again, is by hailing, which may be attended with bad Consequences, especially to Merchant-Ships ; to prevent which, those that are doubtful, before coming within Hail, should hoist Lights of equal Height, where they can best be seen by the other, who is to answer the first hoisted in like Manner ; then he that first hoisted, shall add another Light of the same Height, which must also be answered ; or this Signal (as well as any other) may be of another Kind, as the Commodore thinks proper for better Security.

It must be observed, that the Guns which you fire for Signals in the Night, or in a Fog, be all fired on the same Side, that they may make no Alteration in the Sound.

IN A FOG.

WHEN the Commodore would have the Fleet to weigh, he will fire Guns.

2. If he would have the Fleet to tack, he will fire Guns : Then the Leewardmost and Sternmost are to tack first, and after they are about, to go with the same Sail they tacked with, and, and not to lie by expecting the Commodore to come a-head : which is to avoid the Danger of running through one another.

3. When

3. When he brings to, and lies by with his Head-sails to the Mast, with the Starboard Tacks Aboard, he will fire

Guns : If with the Larboard, then Guns.

4. If he makes Sails after lying by, with his Head-sails to the Mast, he will fire Guns : The Headmost and

Weathermost Ships are to make Sail first.

5. If the Fog-increases, he will continue sailing with the same Sail set that he had before : He will fire a Gun every Hour, which the Ships are to answer by firing of Muskets, beating of Drums, and ringing of Bells.

6. If he is obliged to make more or less Sail than when the Fog came on, he will fire every half Hour a Gun, that the Fleet may discover whether they come up with, or fall a-stern of him ; and they are to answer, by firing of Muskets, &c. as before.

7. If any one discovers Danger, which he can avoid by Tacking and standing from it, he is to make the Signal for Tacking in a Fog : But if he happen to strike and stick fast, he is to fire Gun after Gun, till he believes the Fleet have avoided the Danger, either by Tacking, bearing-up, or Anchoring.

8. When he would have the Fleet to Anchor, he will fire Guns ; and if the Fleet should be so far a-stern that they could not hear, he will fire Guns more,

after he has been at Anchor Hour.

* If any one Ship should be taken by the Enemy, the Master must carefully observe to throw his Signals overboard, and sink them.

GENERAL

GENERAL INSTRUCTIONS and ALLOWANCES, given by the Owners of East-India Ships to the several Commanders in that Service.

Allowed. 1. For **PILOTAGE.**

| | <i>l.</i> | <i>s.</i> | <i>d.</i> |
|--|-----------|-----------|-----------|
| F ROM Gravesend to Deal - - - - - | 10 | 10 | 0 |
| From Deal to Portsmouth, (when ordered there) | 12 | 12 | 0 |
| From Dover, or Deal, to the Ship's mooring in the River Thames - - - - - | 10 | 10 | 0 |

2. For **F E E S.**

| | | | |
|--|---|----|---|
| To the Company's Husband at Botolph Wharf - | 5 | 5 | 0 |
| To the Company's Waiters One Shilling <i>per</i> Day, except when Provisions are dressed on Board. | | | |
| To Searchers at Gravesend - - - - - | 4 | 4 | 0 |
| To their Boatmen - - - - - | 0 | 10 | 6 |
| To Tilbury Fort - - - - - | 0 | 2 | 6 |
| To the Company's Agent at Deal, if he Muster the Ship's Company in the Downs - - - - - | 1 | 1 | 0 |

3. To the **CAPTAIN.**

| | | | |
|---|----|---|---|
| For his Table outward, 'till the Ship's Arrival at her last consigned Port in India, or China | 50 | 0 | 0 |
| In Lieu of best Brandy, when none put on Board by the Owners - - - - - | 5 | 5 | 0 |
| In Lieu of Pickles - - - - - | 3 | 3 | 0 |
| In Lieu of Hams - - - - - | 5 | 5 | 0 |
| In Lieu of Stationary - - - - - | 2 | 2 | 0 |
| For his Table, Homeward-bound - - - - - | 50 | 0 | 0 |
| and Sixty Bags of Paddy, equal to Ten Quarters of Grain, put on Board by the Owners, outward-bound. | | | |
| At Bengal, for himself and Purser, 6 Current Rupees <i>per</i> Day. | | | |

At

At Madras, for himself and Purser, $1\frac{1}{2}$ Pagodas per Day.

— Bombay, for ditto, 5 Silver Rupees.

— Bencoolen, for Ditto, 2 Spanish Dollars.

— Mecha, for Ditto, $1\frac{1}{2}$ Ditto.

— the Cape of Good Hope, for Ditto, $1\frac{1}{2}$ Ditto.

— St. Helena, for Ditto, 7s. 6d. Sterling.

— Ireland, for himself only, 5s. Ditto.

INSTRUCTIONS.

4. The Owners, for the Future, will not admit of any Allowance for the Captain, or Purser, during the Ship's Stay, or Detention, in any Port, or Ports, in *Great-Britain*, neither outward nor homeward-bound; nor at Madagascar; nor at any other Place whatsoever, that does not belong to the Europeans, where the Ship may stop for Water, or Necessaries, during the Course of her Voyage.

5. You are not to suffer any Servant whatsoever, to be rated at higher Wages than are their Due; nor let the Chief or Second Mates have more than one Servant each. And you are likewise to observe, that the Owners will not allow Wages, or Pay, to any Servant whatsoever, either outward or homeward-bound, for their Service in the River Thames.

6. Before you leave Gravesend, you are to send up to the Husband, or Managers of your Ship, an exact Account of such Men as were impressed at the India-House, and did not appear on Board at the Payment of the River Pay, with the Time each Man served on Board, that the same may be allowed to their Securities, on their returning the two Months Impress advanced to them. And if any Man or Men are discharged at Gravesend, on your paying the River Pay, or that Run, or are Discharged, after they are paid the River Pay, you are likewise to send up their Names the first Opportunity that offers. All which must be dated and signed by you, or your Chief Officer.

7. You are to send up to the Husband, or Manager of your Ship, the Names of all the People that you may impress, or enter, either at Gravesend, in the Downs, or elsewhere, before you leave England; together with the Time of their Entry, and Wages per Month.

8. Whatever

8. Whatever People you may impress, or enter, either at Gravesend, or in the Hope, you must be very careful to insert the Time of their Entry, and Wages per Month in the respective Columns of the Contract delivered you for that Purpose; and to make each Person duly sign, seal, and deliver the same, in the Presence of two Witnesses, who are to sign the same as such; which Contract you are to return to your said Husband, or Manager, on your leaving the Hope, or as soon afterwards as you conveniently can, together with each Person's respective Receipt for the Impress so paid him or them.

9. You are to give your Owners Credit for all the Passengers you may carry out to India, ten Pounds each; and likewise for every Lascar, or Servant, ten Pounds; and for every Passenger you may bring home from India, or China, ten Pounds; and for every Servant ten Pounds.

10. Your Owners expect an exact Account to be kept of the Expences of all Provisions as per Book, marked N^o 1 (two of which I have delivered you, one of them to be kept by the Ship's Steward, and the other by yourself) that you may know, at any Time, what Quantity will be necessary to lay in for your Passengers. You are to observe, that eighty-four Gallons of Rice, or five hundred Pounds of Biscuit, are sufficient for one Week's Expences of that Kind of Provisions; and that twenty-eight Weeks Provisions of all Kinds will be sufficient for a Passage home in Time of Peace; but in Time of War, it is adviseable to lay in thirty-two Weeks Provisions at least.

11. The Owners insist, that you transmit to them an Account of all Expence of Provisions, &c. and of what remains on Board, as often as you have Opportunity; and that they will allow of none to be charged as supplied from Abroad, but what appear by the before-mentioned Books, marked N^o 1.

12. You have also three Books delivered to you, marked N^o 2, for the Gunner, Carpenter, and Boatswain, to keep an Account of the Expence of all their Stores, which you are to examine often, and sign them duly every Month; and

and, on your Return to England, the Remainder of all their Stores is to be delivered up to the particular Tradesmen they may be ordered to, or elsewhere, as the said Husband, or Manager, or Owners, shall direct; and whatever the Petty Officers return, less than they ought, must be inserted by you in their respective Books, which are to be returned to me, or to the Husband, or Manager for the Time, before their Wages are paid.

13. You are to avoid touching at any Port or Place, before your Arrival at your consigned Port in the East-Indies, or China, without an absolute Necessity, which must be ascertained by a Consultation of your Officers, it being attended with very great Loss to your Owners, Demurrage not commencing till four Months after your Arrival at your consigned Port: Therefore, if they find that you touch at any Port or Ports, for your Interest, they will oblige you to pay for the Detention of the Ship at such Place.

14. You are to avoid shipping any Lascars, if possible, to bring with you to England, they being attended with very great Expence; but ship Europeans, if you be in want of Men, by Application to the Governors and Council in writing, or any other Method, so that you do not distress each other.

15. What Money you may want for the Use of your Ship, take of the Company on Charter-Party Terms, unless to be had of any private Person or Persons on Respondentia, upon better Terms, and not otherwise; making the Bond, or Bonds, payable Ninety Days after the Arrival of the Ship at her Moorings in the River Thames; but you are to give the Preference to the Company.

16. You will observe, by the Charter-Party, that the short-delivery, and damaged Goods, are to be paid for in England, according to the Loss and Damage settled by the Governor and Council, and yourself: At the Foot, therefore, of the Account you sign, you must insert, if you think they have charged any short-delivery, or Damage, that ought not to fall on your Owners, the Causes whence you apprehend

hend such Deficiencies and Damages arose, by setting forth the Nature of Weighing, Package, &c. and you must transmit to your said Husband, or Owners, Copies of the same by the earliest Conveyance that offers, and by every other Opportunity that you can, that your Owners may have due Advice to insure the same, as they are liable to pay such Deficiency and Damage, should your Ship never return.

17. You are likewise to observe, that the Governors and Council, and others of the Company's Agents Abroad, have Directions to weigh, or cause to be weighed, all the Lead, Iron, Copper, and Elephants Teeth they may receive from you, in the same Manner as they are weighed in England, viz. Ten Pieces of Lead are weighed at one Draft, and no Weight less than Four Pounds used in weighing: Iron about Five Hundred Weight and a Quarter at one Draft, and two Pounds struck at the Scale for each Draft: Copper, and Elephant's Teeth as nearly Five Hundred Weight at a Draft as can be, and to allow one Pound for every Five Hundred Weight; and all other weighable Goods, which they may receive from you, are to be weighed in the same Manner as they are in England.

18. During the Course of the Voyage, if you, or your Officers see or suspect any of the Cargo you are taking in, either for the East-Indies, China, or Europe, to be either wet, damp, or damaged, or the Package bad, you are strictly enjoined to take, or cause to be taken by your Commanding Officers on Board, the Marks and Numbers of such Goods, and the Condition they appear to be in, and except against them in your Bills of Lading. And also, if you take in any Goods belonging to the Company, or on a Freight upon their Account, from on Board any Ship or Vessel, either to carry from Port to Port in the East-Indies, or China, or to bring Home with you; be sure to except against any Damages, or short Delivery, of such Goods in your Bills of Lading; and likewise whatever Grain, Copper, Iron, Steel, Treasure, Copper-Pots, Redwood, Salt-petre, Pepper, or any perishable Commodities, you may take on Board during the Course of your Voyage. You are also strictly enjoined

to

to except in your Bills of Lading against short Delivery, Want of Weight, or Damage of such Goods, which is often unreasonably charged upon the Owners; and not to take in any more Goods or Cargo, to carry from Port to Port in the East-Indies, or China, than your Charter-party expresses.

19. On your taking in Goods, or Cargo, at any Port or Ports in the East-Indies, or China, either for Europe, or to be carried from Port to Port in the East-Indies, or China; if the Season be so far advanced, that you apprehend you may lose your Passage to the Port or Place you are intended to be consigned to, you are to signify the same in Writing to the Governor and Council, or Chief Agent, or Factor, of such Place or Port where you may be taking in such Cargo; and if they then dispatch you out of Time, you must protest against them, or him, for all Damages the Cargo may sustain on Account thereof; observing, that such Protest be drawn up by a Notary Public, or some proper Person, and delivered to the said Governor and Council, or Chief Agent, or Factor, by one of your Officers, who is to give you an Account of the Time and Place of the Delivery of such Protest, duly dated and signed by such Officer; to which must be annexed an attested Copy of the same Protest, which you are carefully to keep, in Order to bring Home for your Justification.

20. If you enter a Seaman or Mariner Abroad, be sure you make him sign, seal, and deliver, the Contract delivered you for that Purpose; in which you are, first, to insert, in the respective Columns, the Quality and Wages *per* Month, which such Person agrees to proceed the Remainder of the Voyage for; and, if you pay him any Imprefs or Advance, be careful to make him sign a Receipt for the same: And likewise, if you entertain any Person on Board to work for his Passage Home; you must absolutely make him sign an Agreement in Writing, expressly declaring that he doth agree faithfully, willingly, and readily to work and perform all and every Kind of Duty, or Service, he is capable of, and may be required to do, by you, or your Officers, on Board

Board your said Ship, during the Remainder of your Voyage into the River Thames ; and without any Fee or Reward whatsoever except such Provisions as you give any other Seaman or Mariner, and in the same Proportion.

21. If the Governor and Council, or any other of the Company's Agents, or Servants Abroad, do send on Board your Ship any military Man or Men, or any other Persons whatsoever, for you to bring Home as a Passenger, or Passengers ; you are to insert in Writing, that they deliver to you with such Passenger or Passengers, an Agreement in Writing, signed by each respective Person so to be brought Home, that they will not directly, or indirectly, ask, sue for, or attempt to recover, any Wages, Gratuity, or Pay, for any Duty, Service, or Sustainance they may be called on to give the Ship, in Time of Need, during the whole Passage ; for want of which Precaution, several such Persons have sued the Owners of the Ship they came Home in, and recovered their Wages as Seamen.

22. You must observe, that all Transactions and Business whatsoever, that you may have with the Governors and Councils, Super Cargoes, or Agents, or any other of the Company's Servants Abroad, relative to your Ship or Cargoe, must be in Writing : And for your Government therein, we direct, that you have Recourse to your Charter-Party, and these Instructions, which you must take with you on all Occasions of Business relative to your Ship and Cargoe.

23. You are to enter exact Copies (into a Book kept for that Purpose) of all Orders, Dispatches, and Instructions, which you shall, or may at any Time, receive from the Governors, and Councils, Super-Cargoes, or Agents, or any other of the Company's Servants you may be consigned to Abroad during the Voyage ; together with true Copies of all Letters and Transactions whatsoever, that you may have with them relative to the Ship or Cargoe : which Book, when you return Home, you are to deliver to your said Husband or Manager, for the Time being, for the Use of your Owners.

24. If you are at any Expence for any of the Company's Soldiers in your outward-bound Passage, or from Port to Port in the East-Indies, you are to deliver in an Account, in Writing, of the Amount thereof, together with a Charge of *Ten per Cent.* thereon for advancing the Money, to the Governor and Council, or Chief Agent of the Place or Port where you land them; requiring the same to be then and there repaid you.

25. You are to give no Present to any Governor, &c, in our Settlements, on the Owners Account. And, in Foreign Ports, you are not to exceed Five Pounds Sterling, that Sum being sufficient for Liberty to procure Refreshments.

26. You are to be very cautious of what you, or your Officers write in your Journals (the less the better) the Owners of Shipping having frequently suffered by trifling Things inserted in Journals.

27. You are to pay at every Port you anchor at, belonging to the Company, one Barrel of Gunpowder, and take a Receipt for the same; by the Neglect thereof, several Ships have paid Five Guineas at their Arrival in England.

28. Your Owners insist, that you send to the Husband, or Managers of your Ship for the Time being, by every Conveyance that offers, a general List of all the Ship's Company, together with an exact Account of all those that Die, Run, or are Discharged, during the Voyage; and also a List of all those that are shipped Abroad, with the Time and Place of their Entry; all which Lists must be properly dated and signed by you; by the Negligence whereof many Ships have paid considerable Sums to the Attornies of People that were dead, or run; to prevent which for the future, they expect that you will keep a general List of the Ship's Company (as above described) ready written, to be sent on any unexpected Occasion that may offer.

29. You are required to bring Home your Sails, that will be fit for another Voyage, in as good Repair as Time and Weather will permit.

30. During

30. During any Part of the Voyage, if you meet with any of the Ships that are under my Direction, they are ordered to deliver you any Stores they can spare, that you may be in Need of, only taking your Receipts for them; and you are desired to supply them on the same Terms: But, at a general Meeting of Owners, it has been agreed, that, where the Ships belong to different Managers, they shall pay each other (in the Country) Fifty per Cent. above the prime Cost, on all Stores supplied from each other.

31. On your Arrival in the River Thames, you must immediately send up to the Husband or Manager for the Time being, an exact List of all the Officers and Men, &c. that have been entertained by you during the whole course of the Voyage, with their Quality, and Time and Places of their Entry, their Wages per Month, and Impress received; also the whole Amount of each Man's Sick Quarters, Purserage, Funeral Charges, Effects bought or sold at the Mast, Discharges, Deaths, and Runings, when and where entered, in their respective Columns, against each Person's Name, as per Method herewith given you marked N^o 3. And, for the more ready making up the Wages, &c. you are to observe, that the Money you advance the People for Sick Quarters, or Funeral Charges, must not be charged in the Purserage, such Practices having occasioned great Confusion in the Pay-Office; but charge the whole to your Owners, and send up such Charges as above directed.

32. Immediately on your Arrival in the River Thames, you are to deliver to the Husband, or Manager of your Ship for the Time being, an exact Account of the respective Times of your Arrival at, and sailing from every Port or Place you have anchored or touched at during the whole Course of your Voyage; and also a List of all the Passengers, Servants and Soldiers, carried out with you, or brought Home, or conveyed from Port to Port in the East-Indies.